## Academic Calendars

### 2023–2024

#### Fall Quarter 2023
- Quarter begins: September 25
- Instruction begins: September 28
- Veterans Day holiday: November 10
- Thanksgiving holiday: November 23–24
- Instruction ends: December 8
- Common final examinations: December 9–10
- Final examinations: December 11–15
- Quarter ends: December 15
- Christmas holiday: December 25–26
- Winter campus closure (tentative): December 27–29
- New Year’s holiday: January 1–2

#### Winter Quarter 2024
- Quarter begins: January 3
- Instruction begins: January 8
- Martin Luther King, Jr. holiday: January 15
- Presidents’ Day holiday: February 19
- Instruction ends: March 15
- Common final examinations: March 16–17
- Final examinations: March 18–22
- Quarter ends: March 22

#### Spring Quarter 2024
- Quarter begins: March 27
- César Chávez holiday: March 29
- Instruction begins: April 1
- Memorial Day holiday: May 27
- Instruction ends: June 7
- Common final examinations: June 8–9
- Final examinations: June 10–14
- Quarter ends: June 14
- **Commencement ceremonies**: June 14–16

#### Summer 2024
- Juneteenth holiday: June 19
- Summer session begins: June 24
- Independence Day holiday: July 4
- Labor Day holiday: September 2
- Summer session ends: September 13

### 2024–2025

#### Fall Quarter 2024
- Quarter begins: September 23
- Instruction begins: September 26
- Veterans Day holiday: November 11
- Thanksgiving holiday: November 28–29
- Instruction ends: December 6
- Common final examinations: December 7–8
- Final examinations: December 9–13
- Quarter ends: December 13
- Winter campus closure (tentative): December 23, 26–27, 30
- Christmas holiday: December 24–25
- New Year’s holiday: December 31–January 1

#### Winter Quarter 2025
- Quarter begins: January 2
- Instruction begins: January 6
- Martin Luther King, Jr. holiday: January 20
- Presidents’ Day holiday: February 17
- Instruction ends: March 14
- Common final examinations: March 15–16
- Final examinations: March 17–21
- Quarter ends: March 21

#### Spring Quarter 2025
- Quarter begins: March 26
- César Chávez holiday: March 28
- Instruction begins: March 31
- Memorial Day holiday: May 26
- Instruction ends: June 7–8
- Common final examinations: June 9–13
- Final examinations: June 10–14
- Quarter ends: June 14
- **Commencement ceremonies**: June 13–15

#### Summer 2025
- Juneteenth holiday: June 19
- Summer session begins: June 23
- Independence Day holiday: July 4
- Labor Day holiday: September 1
- Summer session ends: September 12
General Catalog Information

UCLA General Catalog
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UCLA®
University of California, Los Angeles
Los Angeles, California 90095-1361
Main telephone: 310-825-4321 (campus operator)
Speech- and hearing-impaired access: TTY 310-825-2833
For complete department and school address information, see the campus directory. For mailing address formats, see address standards for UCLA mail.

Accreditation
UCLA is accredited by the Western Association of Schools and Colleges (WASC) Senior College and University Commission, and by numerous special agencies. More information about UCLA accreditation is available at the UCLA Academic Planning and Budget accreditation web page.

Catalog Publication
The UCLA General Catalog is published annually.
Every effort has been made to ensure the accuracy of the information presented in the UCLA General Catalog. However, all courses, course descriptions, instructor designations, curricular degree requirements, and fees described herein are subject to change or deletion without notice. Department websites referenced herein are published independently and may not reflect approved curricula and courses information. Consult this Catalog for the most current, officially approved courses and curricula.

Online Publications
See the Registrar’s website for current detailed information about registration, enrollment, fees, deadlines, updated course descriptions, and other academic information. Classes offered each term can be viewed on the Schedule of Classes.

School Information Materials
Other information about UCLA may be found in materials produced by the College of Letters and Science, and the schools of Arts and Architecture; Dentistry; Education and Information Studies; Engineering and Applied Science; Law; Management; Medicine; Music; Nursing; Public Affairs; Public Health; and Theater, Film, and Television.
Current graduate program information, including officially approved graduate programs and requirements, is available on the Graduate Education website.

Production Credits
Claire McCluskey, Deputy Registrar; Director, Curriculum and Publishing
Blake Livesay, Assistant Registrar, Curriculum Management
Karen Robbins, Designer/Editor
The UCLA General Catalog is produced by the UCLA Registrar’s Office Curriculum and Scheduling/Academic Publications group using CourseLoop, FrameMaker, and other software.

Cover and Title Page
Cover: Late 1920s ceiling fresco in the Royce Hall portico personifies four academic disciplines (clockwise from top): Literature, Philosophy, History, and Mathematics. Originally painted by Julian Ellsworth Garnsey, the mural was restored after the 1994 Northridge earthquake by alumna Tatyana M. Thompson. Personifying the UCLA mission of education, research, and service are (from left): mathematics professor Andrea L. Bertozzi with students simulating oil movement dynamics, geoscience and climate science professor Aradhna Tripati, and students beautifying a school on Volunteer Day. Title page: Royce Hall portico.
Photo credits: © Reed Hutchinson, UCLA Image Library; © 2003 by Alan Nyiri, courtesy of the Atkinson Photographic Archive.
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From the Chancellor

This Catalog describes the incredible array of academic offerings available to you at UCLA. Choose from 5,000 courses each term, 141 bachelor’s degree programs, 143 master’s and professional degree programs, 122 doctoral and professional degree programs, and 104 minors as you build a course of study that suits your interests and aspirations. As a world-class research university with strengths in disciplines from the arts to the sciences, UCLA offers you a remarkable range of academic possibilities. Additionally, more than 70 percent of our undergraduate classes have fewer than 30 students—so you can learn in smaller settings and get to know your professors and classmates.

UCLA is a welcoming place for students from diverse backgrounds. Those admitted to our first-year class for 2022–23, for example, represent all 50 U.S. states and Washington, DC; and 87 countries. All of our students have a thirst for knowledge, and are determined to make a positive impact on society.

Our faculty of more than 5,200 is made up of renowned scholars who are highly regarded as leaders in their fields. At UCLA, we are proud that undergraduates, in addition to graduate students, have opportunities to study with top professors and conduct research under their guidance.

This Catalog includes opportunities that offer priority enrollment for lower-division students. Among these are Fiat Lux seminars, which are small classes in a broad range of subjects; clusters, which engage students in yearlong, team-taught interdisciplinary study of timely topics; and advanced research opportunities.

Despite the challenges we have all faced these past few years, UCLA remains a vibrant community of forward-looking achievers, who think outside traditional academic boundaries and share an exuberant desire to improve the world. We have accomplished so much in our first 104 years, and I look forward to seeing you continue this legacy of innovation throughout your time at UCLA and far beyond.

Gene D. Block
Chancellor
Majors and Degrees

College of Letters and Science

African American Studies Department
African American Studies .......................... BA, MA

African Studies Interdepartmental Program
African Studies ........................................ MA

American Indian Studies Department
American Indian Studies .......................... BA, MA

Anthropology Department
Anthropology ......................................... BA, BS, MA, PhD

Archaeology Interdepartmental Program
Archaeology ......................................... MA, CPhil, PhD

Art History Department
Art History ........................................... BA, MA, PhD

Asian American Studies Department
Asian American Studies .......................... BA, MA

Asian Languages and Cultures Department
Asian Humanities ................................... BA
Asian Languages and Cultures ..................... MA, CPhil, PhD
Asian Languages and Linguistics .................. BA
Asian Religions ......................................... BA
Chinese ................................................ BA
Japanese ................................................ BA
Korean ................................................ BA
Southeast Asian Studies .......................... BA
Teaching Asian Languages ........................ MA

Atmospheric and Oceanic Sciences Department
Atmospheric and Oceanic Sciences ........ BS, MS, CPhil, PhD
Atmospheric and Oceanic Sciences/Mathematics .... BS
Climate Science ........................................ BS

Bioinformatics Interdepartmental Program
Bioinformatics ........................................ MS, PhD

Chemistry and Biochemistry Department
Biochemistry .......................................... BS
Biochemistry, Molecular and Structural
Biology ............................................... MS, CPhil, PhD
Chemistry .......................................... BS, MS, CPhil, PhD
Chemistry/Materials Science ....................... BS
General Chemistry .................................... BS
Master of Applied Chemical Sciences ............ MACS

Chicana/o and Central American Studies Department, César E. Chávez
Chicana and Chicano Studies ..................... BA, MA, CPhil, PhD

Classics Department
Classical Civilization .................................. BA
Classics .............................................. MA, CPhil, PhD
Classics .............................................. BA, MA
Greek ................................................ BA, MA
Greek and Latin ...................................... BA
Latin ................................................. BA, MA

Communication Department
Communication ...................................... BA, MS, PhD

Comparative Literature Department
Comparative Literature ............................. BA, MA, CPhil, PhD

Computational and Systems Biology Interdepartmental Program
Computational and Systems Biology ................ BS

Conservation of Cultural Heritage Interdepartmental Program
Conservation of Cultural Heritage ............... MA
Conservation of Material Culture ................ MS, PhD

Disability Studies Interdepartmental Program
Disability Studies ..................................... BA

Earth, Planetary, and Space Sciences Department
Earth and Environmental Science ................. BA
Engineering Geology ................................ BS
Geochemistry ........................................ MS, CPhil, PhD
Geology ............................................. BS, MS, CPhil, PhD
Geophysics .......................................... BS
Geophysics and Space Physics ..................... MS, PhD
Planetary Science ................................... MS, PhD

East Asian Studies Interdepartmental Program
East Asian Studies ................................... MA

Ecology and Evolutionary Biology Department
Biology .............................................. BS, MS, CPhil, PhD
Ecology, Behavior, and Evolution .................. BS
Marine Biology ....................................... BS

Economics Department
Business Economics ................................... BA
Economics .......................................... BA, MA, CPhil, PhD
Master of Quantitative Economics ................. MQE

English Department
American Literature and Culture .................... BA
English .............................................. BA, MA, CPhil, PhD

Environment and Sustainability, Institute of the Center for Interdisciplinary Instruction
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<td>International and Area Studies Interdepartmental Program</td>
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<td>Mathematics Department</td>
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<td>Applied Mathematics</td>
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<td>Data Theory</td>
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<td>Financial Actuarial Mathematics</td>
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<td>Mathematics/Economics Interdepartmental Program</td>
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<td>Microbiology, Immunology, and Molecular Genetics Department</td>
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<td>Molecular, Cell, and Development Biology Interdepartmental Program</td>
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<td>Molecular, Cellular, and Integrative Physiology Interdepartmental Program</td>
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<td>Near Eastern Languages and Cultures Department</td>
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Programs and Departments

Study of Religion

- Interdepartmental Program
- Spanish and Portuguese Department
- Sociology Department
- Human Genetics Department
- Society and Genetics, Institute for
  Center for Interdisciplinary Instruction
- Computational Medicine Department
- Slavic, East European, and Eurasian Languages and Cultures Department
- Political Science Department
- Psychology Department
- Social Science Interdepartmental Program
- Sociology Department
- Spanish and Portuguese Department
- Slovene Department
- Statistics and Data Science Department
- Study of Religion Interdepartmental Program

Medicine

- Schoolwide Program
  Doctor of Medicine
- Microbiology, Immunology, and Molecular Genetics Department
- Molecular and Medical Pharmacology Department
- Molecular, Cellular, and Integrative Physiology Interdepartmental Program
- Neuroscience Interdepartmental Program
- Physics and Biology in Medicine Interdepartmental Program

Engineering

- Henry Samueli School of Engineering and Applied Science
  - Bioengineering Department
  - Chemical and Biomolecular Engineering Department
  - Civil and Environmental Engineering Department
  - Computer Science Department
  - Electrical and Computer Engineering Department
- Engineering Schoolwide Programs

Geffen School of Medicine

- Computational Medicine Department
  - Biomathematics
  - Clinical Research
- Human Genetics Department
  - Genetic Counseling
  - Human Genetics

Schoolwide Programs

- Biophysics
- Master of Quantum Science and Technology
- Physics
- Political Science
- Cognitive Science
- Psychobiology
- Psychology
- Central and East European Languages and Cultures
- Russian Language and Literature
- Russian Studies
- Slavic, East European, and Eurasian Languages and Cultures
- Master of Social Science
- Human Biology and Society
- Sociology
- Hispanic Languages and Literatures
- Portuguese
- Portuguese and Brazilian Studies
- Spanish
- Spanish and Community and Culture
- Spanish and Linguistics
- Spanish and Portuguese
- Data Theory
- Master of Applied Statistics
- Statistics
- Study of Religion
- Medicine
- Engineering
Master of Engineering ........................ MEng
Materials Science and Engineering Department
Materials Engineering ........................ BS
Materials Science and Engineering .......... MS, PhD
Mechanical and Aerospace Engineering Department
Aerospace Engineering ........................ BS, MS, PhD
Manufacturing Engineering ..................... MS
Mechanical Engineering ........................ BS, MS, PhD

Herb Alpert School of Music
Ethnomusicology Department
Ethnomusicology .............................. BA, MA, CPhil, PhD
Global Jazz Studies Interdepartmental Program
Global Jazz Studies .............................. BA

Music Department
Master of Music ................................. MM
Music ................................. BA, MA, DMA, CPhil, PhD
Music Composition ............................ BA
Music Education ............................... BA
Music Performance ............................ BM

Music Industry Interdepartmental Program
Music Industry ................................. BA

Musicology Department
Music History and Industry ..................... BA
Musicology ................................. BA, MA, CPhil, PhD

John E. Anderson Graduate School of Management
Management Department
Business Analytics .............................. MS
Executive Master of Business Administration .... EMBA
Fully Employed Master of Business Administration ..... FEMBA
Global Executive Master of Business Administration for Asia Pacific ......................... GEMBA
Management ................................. MS, CPhil, PhD
Master of Business Administration .......... MBA
Master of Financial Engineering .......... MFE
Community Health Sciences Department
Community Health Sciences ........................ MS, PhD
Master of Public Health for Health Professionals ....... MPH-HP
Environmental Health Sciences Department
Environmental Health Sciences ........................ MS, PhD
Epidemiology Department
Epidemiology ................................. MS, PhD
Health Policy and Management Department
Executive Master of Public Health ........................ EMPH
Health Policy and Management ........................ MS, PhD
Master of Healthcare Administration ........................ MHA
Molecular Toxicology Interdepartmental Program
Molecular Toxicology ............................ PhD

Public Health
Public Health ................................. BA, BS

Meyer and Renee Luskin School of Public Affairs
Public Affairs Schoolwide Programs
Public Affairs ................................. BA
Public Policy Department
Master of Public Policy ......................... MPP
Social Welfare Department
Master of Social Welfare ........................ MSW
Social Welfare ................................. PhD
Urban Planning Department
Master of Urban and Regional Planning ............... MURP
Master of Urban and Regional Planning–Institut d’Études de Paris ......................... MURP
Urban Planning ................................. PhD

Jonathan and Karin Fielding School of Public Health
Biostatistics Department
Biostatistics ................................. MS, PhD
Master of Data Science in Health ........................ MDSH

School of the Arts and Architecture
Architecture and Urban Design Department
Architectural Studies .......................... BA
Architecture ................................. MA, PhD
### Architecture and Urban Design
- Master of Architecture: MArch

### Art Department
- Art: BA, MFA

### Design|Media Arts Department
- Design|Media Arts: BA, MFA

### Individual Field
- Individual Field: BA

### World Arts and Cultures/Dance Department
- Choreographic Inquiry: MFA
- Culture and Performance: MA, PhD
- Dance: BA
- World Arts and Cultures: BA

### School of Dentistry
#### Dentistry Department
- Doctor of Dental Surgery: DDS

#### Oral Biology Section
- Oral Biology: MS, PhD

### School of Education and Information Studies
#### Education Department
- Doctor of Education: EdD
- Education: MA, PhD
- Educational Administration: Joint EdD with UCI
- Education and Social Transformation: BA
- Master of Education: MEd
- Special Education: Joint PhD with CSULA

#### Information Studies Department
- Information Studies: PhD
- Master of Library and Information Science: MLIS

### School of Law
#### Law Department
- Doctor of Juridical Science: SJD
- Juris Doctor: JD
- Master of Laws: LLM
- Master of Legal Studies: MLS

### School of Nursing
#### Nursing Department
- Doctor of Nursing Practice: DNP
- Master of Science in Nursing: MSN

### School of Theater, Film, and Television
#### Film, Television, and Digital Media Department
- Film and Television: BA, MA, MFA, CPhil, PhD

#### Individual Field
- Individual Field: BA

#### Theater Department
- Theater: BA, MFA
- Theater and Performance Studies: CPhil, PhD

### Undergraduate Minors and Specializations

#### Minors

### College of Letters and Science
- African American Studies
- African and Middle Eastern Studies
- African Studies
- American Indian Studies
- Ancient Near East and Egyptology
- Anthropology
- Applied Developmental Psychology
- Arabic and Islamic Studies
- Armenian Studies
- Art History
- Asian American Studies
- Asian Humanities
- Asian Languages
- Atmospheric and Oceanic Sciences
- Biomedical Research
- Brain and Behavioral Health
- Central American Studies
- Central and East European Studies
- Chicana and Chicano Studies
- Classical Civilization
- Cognitive Science
- Community Engagement and Social Change
- Comparative Literature
- Conservation Biology
- Creative Writing
- Digital Humanities
- Earth and Environmental Science
- East Asian Studies
- English

### Nursing
- BS, MS, PhD
Environmental Systems and Society
European Languages and Transcultural Studies
European Languages and Transcultural Studies with French and Francophone
European Languages and Transcultural Studies with German
European Languages and Transcultural Studies with Italian
European Studies
Evolutionary Medicine
Food Studies
Gender Studies
Geochemistry
Geography
Geography/Environmental Studies
Geology
Geophysics and Planetary Physics
Geospatial Information Systems and Technologies
Global Health
Global Studies
Greek Language and Culture
Hebrew and Jewish Studies
History
History of Science, Technology, and Medicine
International Migration Studies
Iranian Studies
Israel Studies
Labor Studies
Latin American Studies
Latin Language and Culture
Lesbian, Gay, Bisexual, Transgender, and Queer Studies
Linguistics
Literature and the Environment
Mathematical Biology
Mathematics
Mathematics for Teaching
Mexican Studies
Middle Eastern Studies
Neuroscience
Philosophy
Pilipino Studies
Portuguese and Brazilian Studies
Professional Writing
Russian Language
Russian Literature
Russian Studies
Scandinavian
Science Education
Social Data Science
Social Thought
Society and Genetics
South Asian Studies
Southeast Asian Studies
Spanish
Spanish Linguistics
Statistics and Data Science
Structural Biology
Study of Religion
Systems Biology
Henry Samueli School of Engineering and Applied Science
Bioinformatics
Data Science Engineering
Environmental Engineering
Herb Alpert School of Music
Ethnomusicology
Iranian Music
Music Industry
Musicology
John E. Anderson Graduate School of Management
Accounting
Entrepreneurship
Meyer and Renee Luskin School of Public Affairs
Gerontology
Public Affairs
Urban and Regional Studies
Jonathan and Karin Fielding School of Public Health
Public Health
School of the Arts and Architecture
Visual and Performing Arts Education
School of Education and Information Studies
Education Studies
Information and Media Literacy
School of Theater, Film, and Television
Film, Television, and Digital Media
Theater

Computing Specializations
These departments in the College of Letters and Science offer a computing specialization to some or all majors. See the individual department section for details.

Chemistry
Communication
Ecology and Evolutionary Biology
Linguistics
Mathematics
Mathematics/Economics
Molecular, Cell, and Developmental Biology
Psychology
Sociology
Graduate Articulated and Concurrent Degrees
Inquiries about articulated and concurrent degree programs should be directed to graduate advisers in the departments and schools involved. Students should contact Graduate Admissions/Student and Academic Affairs for information on designing articulated programs.

Articulated Degrees
Articulated degree programs permit no credit overlap; students must complete degree requirements separately for each degree.

- Clinical Research MS/Doctor of Medicine
- Division of Graduate Education health science major PhD/Doctor of Medicine
- Doctor of Medicine/Education MA
- Doctor of Medicine/Master of Legal Studies
- Doctor of Medicine/Master of Public Health
- Doctor of Dental Surgery or Certificate/Oral Biology MS or PhD
- Latin American Studies Interdepartmental MA/Master of Education in Curriculum
- Latin American Studies Interdepartmental MA/Master of Library and Information Science
- Latin American Studies Interdepartmental MA/Master of Public Health

Concurrent Degrees
Concurrent degree programs allow students to reduce the number of courses required for two degrees, since some courses may apply to both degrees.

- African American Studies MA/Juris Doctor
- African Studies Interdepartmental MA/Master of Public Health
- American Indian Studies MA/Juris Doctor
- Asian American Studies MA/Master of Public Health
- Asian American Studies MA/Master of Social Welfare
- Community Health Sciences MPH/Master of Urban Planning
- Computer Science MS/Master of Business Administration
- Doctor of Dental Surgery/Master of Business Administration
- Doctor of Education/Juris Doctor
- Doctor of Medicine/Master of Business Administration
- Doctor of Medicine/Master of Public Policy
- Education MA/Juris Doctor
- Education PhD/Juris Doctor
- Environmental Health Sciences MPH/Master of Urban Planning
- Juris Doctor/Master of Business Administration
- Juris Doctor/Master of Education
- Juris Doctor/Master of Public Health
- Juris Doctor/Master of Public Policy
- Juris Doctor/Master of Social Welfare
- Juris Doctor/Master of Urban Planning
- Juris Doctor/Philosophy PhD
- Latin American Studies Interdepartmental MA/Master of Urban Planning
- Latin American Studies Interdepartmental MA/Master of Business Administration
- Master of Architecture/Master of Urban Planning
- Master of Business Administration/Master of Library and Information Science
- Master of Business Administration/Master of Public Health
- Master of Business Administration/Master of Public Policy
- Master of Business Administration/Master of Science in Nursing
- Master of Business Administration/Master of Urban Planning
- Master of Public Health/Master of Public Policy
- Master of Public Health/Master of Social Welfare
- Master of Public Policy/Master of Social Welfare
About UCLA

Few universities in the world offer the extraordinary range and diversity of academic programs that students enjoy at UCLA. Leadership in education, research, and public service make UCLA a beacon of excellence in higher education, as students, faculty members, and staff come together in a true community of scholars to advance knowledge, address societal challenges, and pursue intellectual and personal fulfillment.

As a public research university, the mission of UCLA is to create, disseminate, preserve, and apply knowledge to better society. Based on a foundation of learning and teaching, the mission also focuses on discovery, creativity, innovation, and civic engagement.

UCLA administration is led by its chancellor, provost, vice chancellors and vice provosts, and deans of the divisions and schools. Its Student Affairs division oversees programs and services that support student academic and personal success. Its Division of Graduate Education oversees recruitment and admissions, funding and appointments, and maintenance of high-quality standards in graduate programs. Through the Academic Senate, faculty share in the operation and management of UCLA.

UCLA is comprised of the College of Letters and Science—with its humanities, life sciences, physical sciences, social sciences, and undergraduate education divisions—and 12 professional schools: School of the Arts and Architecture; School of Dentistry; School of Education and Information Studies; Henry Samueli School of Engineering and Applied Science; School of Law; John E. Anderson Graduate School of Management; David Geffen School of Medicine at UCLA; Herb Alpert School of Music; School of Nursing; Meyer and Renee Luskin School of Public Affairs; Jonathan and Karin Fielding School of Public Health; and School of Theater, Film, and Television.

Education

The National Research Council Committee to Assess Research-Doctorate Programs evaluates the quality of the faculty in 212 American research universities approximately every 15 years. Of the 62 doctorate degree disciplines studied in the 2011 evaluation, 33 UCLA academic departments ranked among the top 10 in the country and 12 ranked among the top 20.

Distinguished faculty members at UCLA include Nobel prizewinners, Guggenheim fellows, Sloan fellows, and Fulbright scholars, as well as numerous members of the National Academy of Sciences and the American Academy of Arts and Sciences. In fact, UCLA consistently places among the leading universities nationwide in the number of these prestigious awards granted to its faculty members.

This remarkable pool of talent is shared across the College and 12 professional schools. Undergraduate and graduate degree programs are offered by the College and by schools focused on education, engineering, fine arts, media, nursing, performing arts, public affairs, and public health. The other professional schools offer graduate degree programs and undergraduate minors.

Undergraduates may earn one of 141 bachelor degrees; graduate students may earn one of 143 master/professional and 122 doctorate/professional degrees.

Academic programs undergo continuous review and evaluation to maintain their excellence, and new degree programs are added as they are approved by the Academic Senate or the Regents.

Research

Pushing the boundaries of the known, UCLA researchers—faculty members and students, both graduate and undergraduate—venture every day into uncharted worlds from the molecular to the galactic.

Whether tracing the roots of urban decay, pioneering new drug therapies for cancer, or revealing a black hole at the center of our galaxy, research at UCLA is advancing the frontiers of knowledge.

Among the leading research universities in the world, in 2021-22 UCLA received $1.72 billion in extramural grants and contracts to support its research. Each year it hosts hundreds of postdoctoral scholars who share its facilities. UCLA laboratories have seen major breakthroughs in scientific and medical research. Its study centers have helped foster understanding among the various cultures of the world. And its ongoing pursuits of new knowledge in vital areas continue to improve the quality of life for people around the world.

Faculty members teach both undergraduate and graduate courses and, through their research, create knowledge as well as transmit it. At UCLA, students are taught by the people making the discoveries. They exchange ideas with faculty members who are authorities in their fields and, even as undergraduate students, are encouraged to participate in research to experience firsthand the discovery of new knowledge.
Service
As a public university, serving the community is one of greatest commitments UCLA makes. Undergraduate and graduate programs, research activities, community outreach programs, and grass-roots participation by students, faculty, and alumni help to forge a partnership between UCLA and the entire Los Angeles region.

With the Ronald Reagan UCLA Medical Center, UCLA furthers its tradition of medical outreach and assures the highest quality of care to Los Angeles and the world. The School of Dentistry, with clinics on campus and in Venice, offers free dental care and treatment to those in need at community health fairs. The Rape Treatment Center—located at the UCLA Medical Center, Santa Monica—offers 24-hour care to victims. Faculty and students in the Fielding School of Public Health work in communities around the world to address disparities underlying differences in the health status of individuals, and the School of Nursing offers care to the poor and homeless through its nurse-managed health center at the Union Rescue Mission. UCLA also supports K-12 enhancement programs such as the Music Partnership Program in the Herb Alpert School of Music, which funds UCLA students to be academic and musical mentors for at-risk youth.

Students can get involved in the community in many different ways. The UCLA Volunteer Center coordinates year-round programs and annual events, such as UCLA Volunteer Day where Bruins perform service work at over 55 community partner sites across Los Angeles. BruinCorps tutors under-performing youth in disadvantaged communities.

As UCLA gives to the community, Los Angeles gives something back. UCLA arts and cultural programs, for example, attract more than half a million people each year, drawn by everything from world-class acts performing at Royce Hall to screenings of classic films from the School of Theater, Film, and Television archives. These relationships create opportunities for partnerships and growth that ensure the pre-eminence of UCLA in the twenty-first century and beyond.

History of UCLA
In 1880—with just 11,000 inhabitants—the pueblo of Los Angeles convinced the state government to establish a normal school (teachers college) in Southern California. Enthusiastic citizens contributed between $2 and $500 to purchase a site; and on August 29, 1882, the Los Angeles Branch State Normal School welcomed its first students in a Victorian building that had been erected on the site of an orange grove.

By 1914 Los Angeles had grown to a city of 350,000, and the school moved to new quarters—a Hollywood ranch off a dirt road that later became Vermont Avenue. In 1919 the school became the Southern Branch of the University of California, and offered two years of instruction in letters and science. Third- and fourth-year courses were soon added; the first class of 300 students was graduated in 1925, and two years later the Southern Branch had earned its new name: University of California at Los Angeles. In 1958, at was replaced by a comma and the official name became University of California, Los Angeles.

Continued growth mandated a site that could support a larger campus, and in 1927 ground was broken in the chaparral-covered hills of Westwood. The four original buildings—Royce Hall, College Library, Chemistry Building, and Physics-Biology Building—formed a lonesome cluster in the middle of 400 empty acres. The campus hosted 5,500 students its first term in 1929. The UCLA master’s degree was established in 1933 and the doctorate in 1936. UCLA was fast becoming a full-fledged university that offered advanced study in almost every field.

Following World War II, UCLA began a period of spectacular growth: in 25 years its enrollment tripled to 27,000 students. The campus undertook what would become a $260 million building program that included residence halls, parking structures, laboratories, more classrooms, service buildings, athletic and recreational facilities, and a teaching hospital that is now one of the largest and most highly respected in the world. In the late 1950s and 1960s, UCLA was at the center of many milestones: the first open-heart surgery in the western U.S. was performed at its medical center; the first of 10 NCAA men’s basketball championships was won; and it became the first ARPANET node, heralding the birth of the Internet.

The rest of the twentieth century, through the opening of the twenty-first, was peppered with notable UCLA events: Nobel prizes awarded to multiple faculty; breakthroughs in treatments for cancer, brain aneurysms, and organ transplants; explosive growth in research grants; more than 30 Oscars awarded to creative alumni; completion of a new medical center; expansion of campus housing to accommodate nearly all incoming freshmen; and becoming the first university to win 100 NCAA team championships.

At the start of the 2010s, UCLA began construction on a series of new residence halls with the goal of expanding guaranteed on-campus housing to all students. In 2016, the Herb Alpert School of Music became the 12th professional school at UCLA and first independent music school in the UC system. UCLA celebrated its centennial in 2019-20, raising $5.49 billion toward student scholarships, faculty support, research programs, and campus facilities. Today, UCLA is home to over 47,700 students and 4,100 faculty.
members. With 223 campus buildings, classes are held in more than 85 facilities. As UCLA passes its 100th anniversary, it remains firmly rooted in Westwood but its reach is beyond borders, with programs and collaborations that span the country, the globe, and even outer space.

**University of California System**

UCLA is part of the University of California (UC) system, which traces its origins to 1868 when Governor Henry H. Haight signed the Organic Act that provided for the first California “complete university.” Classes began the next year at the College of California in Oakland. In 1873 the first Berkeley campus buildings were completed, and the university moved into its new home. The following June, bachelor’s degrees were conferred on 12 graduates.

Today, the University of California is one of the largest and most renowned centers of higher education in the world. Its 10 campuses span the state, from Davis in the north to San Diego in the south. In between are Berkeley, San Francisco, Merced, Santa Cruz, Santa Barbara, Los Angeles, Riverside, and Irvine. All campuses adhere to the same admission guidelines and high academic standards, yet each has its own distinct character and academic individuality. Riverside, for example, excels in the plant sciences and entomology; Davis has a large agricultural school and the only UC veterinary medicine program; San Diego offers excellent oceanography and marine biology programs; and San Francisco is devoted exclusively to the health sciences. Among the campuses are six medical schools and four law schools, as well as schools of architecture, business administration, education, engineering, and many others.

The UC campuses have a combined enrollment exceeding 294,300 students, 75 percent of them California residents. About one-fifth study at the graduate level. Some 150 laboratories, extension centers, and research and field stations strengthen teaching and research while supplying public service to California and the nation. The collections of over 100 UC libraries on the 10 campuses are surpassed in size in North America only by the U.S. Library of Congress collection.

The UC faculty is internationally known for its distinguished academic achievements. On its 10 campuses the University of California has 31 living Nobel laureates, and membership in the National Academy of Sciences is the largest of any university in the country.

The UC system is governed by a Board of Regents whose regular members are appointed by the Governor of California. In addition to setting general policy and making budgetary decisions for the UC system, the Regents appoint the President of the University of California, the 10 chancellors, and the directors and deans who administer the affairs of the individual campuses and divisions of the University of California. The Regents delegate authority in academic matters to the Academic Senate, which determines academic policy for the University of California as a whole. The Senate, composed of faculty members and certain administrative officers, determines conditions for admission and granting of degrees, authorizes and supervises courses and curricula, and advises UC administrators on budgets and faculty appointments and promotions. Local divisions of the universitywide Academic Senate determine academic policy for each campus. Students also participate in policymaking at campus and system levels.

**Campus Life**

Just six miles from the ocean, UCLA lies in one of the most attractive areas of Southern California. It is bordered on the north by the protected wilderness of the Santa Monica Mountains and on the south by Westwood Village. Besides lecture halls and classrooms, campus facilities include libraries, studios, theaters, and a planetarium; athletic fields, famed Pauley Pavilion, and recreation/exercise space; gar-
dens and outdoor spaces accented by the Inverted Fountain and Janss Steps; the Hill, home to campus residence halls and common spaces; and its renowned medical center.

Unique Setting

UCLA is nestled in the hills of Westwood, with the Romanesque architecture of its early buildings a backdrop for diverse campus settings. Bruin Walk continually echoes with the chatter of students and vendors, but nearby, the botanical gardens provide a serene escape. While a hip-hop band energizes lunchtime crowds in Bruin Plaza, a classical recital may be taking place in Schoenberg Music Building, and students contemplating a Rodin or Lachaise in the Murphy Sculpture Garden may be unaware of a political rally organizing in Meyerhoff Park. With its traditional appearance and temperate climate, it is not unusual to find campus locations being used for filming television and movies and hosting large events.

To give a feel for the dynamic atmosphere at UCLA, tours for prospective undergraduates are offered by Undergraduate Admission.

Large Campus with a Comfortable Feel

The general campus population, some 43,670 students, is enriched by an additional 4,162 in the health sciences schools of dentistry, medicine, nursing, and public health. While such numbers sound daunting, UCLA offers orientation sessions and innovative academic assistance programs to help acclimate new students. Through a range of services and social programs, new students quickly meet people with common interests in their academic departments, residence halls, or clubs and organizations. Even athletic events help to cement relationships as the campus comes together to celebrate Bruin victories.

Large lecture groups exist, especially in introductory courses; however, 83 percent of lower-division lecture classes in 2021-22 had under 200 students, and UCLA is striving to further reduce class size. Large lecture classes typically include discussion sections of about 25 students, or smaller seminars and laboratory classes. There is an overall ratio of one faculty member for approximately 18 students.

Most UCLA faculty members set aside office hours for students and appreciate the opportunity for informal conversation. Professors are often aided by graduate student teaching assistants (TAs).
scientific laboratories, performance and studio spaces, and off-campus settings. Students and faculty members themselves mirror the cultural and racial diversity of Los Angeles. Academic programs are described in detail in Curricula and Courses.

The International Education Office, Summer Sessions, UCLA Extension, and UCLA International Institute offer academic and professional resources to UCLA and the greater Los Angeles community, as well as to the international community.

Study Abroad
Study abroad and student exchange are exciting and broadening experiences that enrich any educational curriculum. The International Education Office (IEO) works to facilitate international education by serving as the campuswide portal for the development and administration of study abroad and student exchange activity. It supplies assistance to academic units seeking to develop study abroad programs, and it collaborates with the Academic Senate and departments to ensure academic oversight of study abroad programs. The IEO also coordinates student advising services for undergraduate and graduate students interested in studying abroad.

The IEO administers several programs, including the UC Education Abroad Program (UCEAP), Summer Travel Study, Non-UC Programs, and various student exchange agreements.

Education Abroad Program
The UC Education Abroad Program (UCEAP) offers short- and long-term study programs in cooperation with over 115 host universities and colleges in more than 42 countries throughout the world. Participating students remain registered at their home campuses while studying abroad and receive full academic credit for their work. With careful planning, study abroad should not delay progress toward graduation. While on EAP, students are eligible for financial aid.

Summer Travel Study
Summer Travel Study offers short-term summer programs on five continents. Summer Travel Study programs offer UC credit, the promise of an exciting summertime adventure, and intensive learning experiences taught by distinguished UCLA faculty members. Over 17 academic departments offer Summer Travel Study programs that include from 8 to 16 quarter units of UC credit. Financial aid is available for qualified UC students. Registration begins in November for the following summer on a first-come, first-served basis. Summer Travel Study is open to all students at any academic level. There is no grade-point average requirement to participate.

Non-UC Programs
Students may also study abroad through other universities and programs not affiliated with UCLA. The IEO strongly recommends that all students considering non-UC programs contact the IEO early in the planning process about UCLA policies on planned academic leave (PAL), transfer credit, financial support, and more. UC financial aid is not available for study abroad on non-UC programs.

Summer Sessions
UCLA offers various ways to earn UCLA credit during the summer—academic courses, summer institutes, travel study, and more. Hundreds of courses from over 70 departments are offered in three-, six-, eight-, nine-, and 10-week sessions. Pre-college and college/professional summer institutes offer innovative approaches to teaching and learning that combine UCLA coursework with practical training in real-world situations, preparing students for their future careers. Some programs, such as the Summer College Immersion Program, are offered specifically for advanced high-school students, affording them an opportunity to experience the academic rigor of UCLA. Summer Travel Study allows students to learn various subjects as part of an exciting and challenging travel experience. All Summer Sessions offerings can be explored online.

Although visiting students are welcome to enroll, admission to summer sessions does not constitute admission to UCLA in either undergraduate or graduate standing. Students who wish to attend UCLA in regular academic terms must follow admission procedures described in Undergraduate Study and Graduate Study.

Regularly enrolled UCLA undergraduate students may attend summer sessions for full unit and grade credit. Summer session coursework is recorded on the UCLA transcript, and grades earned are computed in the grade-point average. Students should check with a College or school counselor about applying these courses toward degree requirements, and about any limitations the College or school may impose on coursework completed in summer sessions. UCLA financial aid is available to qualified UCLA students.

Regularly enrolled UCLA graduate students may, with department approval, take courses offered in summer sessions for credit toward a master’s or doctorate degree; consult a graduate adviser in advance about this possibility. Summer session courses may also satisfy the academic residence requirement for master’s or doctorate degrees. Unlike enrollment in regular terms, students may attend another college institution for credit while they are enrolled in summer sessions. Registration information is available from the Summer Sessions office.
UCLA Extension

With over 84,000 adult student enrollments each year, UCLA Extension is one of the largest university continuing education programs in the world. It is designed to bring the benefits of UCLA—its scholars, research, and resources—to the community and the state as a whole.

Many of the 5,500 UCLA Extension classes are innovative and experimental in content, format, and teaching methods. Credit and noncredit courses are offered in nearly every academic discipline, in many interdisciplinary areas, and in emerging fields.

In addition, Extension offers special programs each term on topical issues as well as those of ongoing public concern. Many noncredit Extension courses offer the opportunity to earn Continuing Education Units (CEUs), widely used for relicensure and other professional/career-related purposes.

Although registering for Extension courses does not constitute admission to UCLA, degree credit earned through Extension may apply toward the UCLA bachelor’s or master’s degree; consult a College or school counselor or graduate adviser before enrolling. For more information, refer to UCLA Extension under Transfer Credit in Academic Policies.

UCLA International Institute

The UCLA International Institute promotes interdisciplinary education and research on world regions and global issues. Its 27 interdisciplinary research centers and eight interdepartmental degree programs foster innovative research and offer educational opportunities on virtually every region of the world. The institute seeks to internationalize UCLA curricula and prepare students to be global citizens. Every fall, it leads a popular all-campus celebration of International Education Week.

The institute offers six undergraduate majors including global studies, international and area studies, and international development studies; 10 undergraduate minors, including global health and international migration studies; and three master’s degree programs in African Studies, East Asian Studies, and Latin American Studies. These academic programs annually enroll nearly 1,000 students. Together with its centers, the institute serves the entire campus through a wide range of academic events, scholarships, and grants. It acts as a gateway to the world for UCLA and the global city of Los Angeles, hosting free public events, research conferences, cultural programs, and K-12 outreach. The institute also brings together faculty from the College, professional schools, and research centers across the UCLA campus for collaborative global and regional research initiatives.

Research Programs

At any given time, more than 6,000 funded research programs are in progress at UCLA. Interdisciplinary Organized Research Units, research centers, institutes, and laboratories focus on key research in a specific area.

Organized Research Units

Organized Research Units (ORUs) are campuswide research programs. Members come from more than one department and usually from more than one school, college, or division.

American Indian Studies Center

The American Indian Studies Center (AISC) serves as an educational and research catalyst. It includes a library, postdoctoral fellowship programs, a publishing unit that produces books and a quarterly journal, and a student/community relations unit. AISC is one of four ORUs overseen by the Institute of American Cultures (IAC).

Asian American Studies Center

The Asian American Studies Center (AASC) seeks to increase knowledge and understanding of the experiences of Asian and Pacific Islander peoples in America, and promotes the development of material resources related to Asian American studies. The center includes a library, publications unit, student/community projects unit, and postdoctoral fellowship programs. AASC is one of four ORUs overseen by the Institute of American Cultures (IAC).

Brain Research Institute

The Brain Research Institute (BRI) has one of the largest programs for neuroscience research and education in the country, with approximately 300 scientists from nearly 30 departments involved in every aspect of neuroscience
research from molecular organization to human behavior. The BRI offers facilities with new technologies for research and training; and sponsors affinity groups, conferences, and symposia to strengthen ties among neuroscientists. Public service activities include an elementary-and-secondary-school outreach program and a joint educational program with UCLA Extension.

Center for European and Russian Studies

The Center for European and Russian Studies (CERS) develops and coordinates teaching and research on Russia and the successor states of the former Soviet Union—and western European countries—through conferences, lectures, seminars, and academic exchange programs with European and Russian institutions. It also funds advanced instruction in languages such as Czech, Hungarian, Romanian, Polish, and Serbian/Croatian, and offers fellowships to graduate students in European area studies.

Center for Medieval and Renaissance Studies

The Center for Medieval and Renaissance Studies (CMRS) supports the research activities of some 125 faculty members in 24 academic disciplines dealing with the development of civilization between AD 300 and 1650. Programs include appointing visiting professors, organizing conferences, and supporting departments in inviting lecturers. The center sponsors two journals: Viator, with emphasis on intercultural and interdisciplinary studies; and Comitatus, with articles by graduate students and recent PhD graduates.

Center for Seventeenth- and Eighteenth-Century Studies

The Center for Seventeenth- and Eighteenth-Century Studies organizes scholarly programs and workshops, publishes conference results, provides long- and short-term fellowships to students and scholars, offers graduate research assistantships and master classes, and organizes public programs and classical music concerts.

The center administers the William Andrews Clark Memorial Library, located in the West Adams neighborhood of Los Angeles, that specializes in seventeenth- and eighteenth-century British works. The library also has a renowned collection centering on Oscar Wilde and his era, and significant holdings of modern fine printing and Western Americana.

Center for the Study of Women

The Center for the Study of Women (CSW) draws on the expertise of more than 200 faculty members from 10 professional schools and 34 departments. To facilitate faculty research, the center organizes conferences and lecture series on feminist theory, administers research grants, and offers an affiliation for research and visiting scholars. The center sponsors working groups; produces calendar-of-events posters; and hosts graduate programs and an annual graduate student research conference.

Chicano Studies Research Center

The Chicano Studies Research Center (CSRC) promotes the study and dissemination of knowledge about the experience of people of Mexican descent and other Latinos in the U.S. The center supports interdisciplinary and collaborative research and the analysis, understanding, and articulation of issues critical to the development of Chicano and Latino communities in the U.S. It seeks to establish and maintain relationships with communities with similar academic and research interests at the state, national, and international levels. The center also includes a library, academic press, and grant fellowship programs. CSRC is one of four ORUs overseen by the Institute of American Cultures (IAC).

Cotsen Institute of Archaeology

The Cotsen Institute of Archaeology (CIoA) studies and seeks to understand the human past through artifacts, analysis of field data, and the creation of archives. The institute—the only one of its kind in the U.S.—coordinates facilities for more than 30 researchers, and many graduate students and volunteers, in 11 associated academic departments. Facilities include the Ceramics Research Group collections, Cotsen Digital Archive, Lithic Analysis Research Group collections, Moche Archive, Rock Art Archive, and many laboratories such as the Channel Islands Laboratory, East Asian Laboratory, Human Origins Laboratory, and Zooarchaeology Laboratory. It publishes the findings of scholars from UCLA and other archaeology centers and supplies a forum for the public presentation of archaeological discoveries and advances.

Crump Institute for Molecular Imaging

The Crump Institute for Molecular Imaging (CIMI) brings together physical, biomathematical, chemical, biological, and clinical scientists and students to merge the principles of imaging with those of molecular and cellular biology, genetics, and biochemistry. The imaging domains range from the molecular organization of viruses and cellular subunits to the biological processes of organ systems in the living human. A major focus is the development and use of imaging technologies to collect, analyze, and communicate
biological data. The institute has research and educational programs for visiting scientists, postdoctoral scholars, and PhD graduate students that include the development of multimedia computer-based learning technologies.

**Gustave E. von Grunebaum Center for Near Eastern Studies**

The von Grunebaum Center for Near Eastern Studies (CNES) coordinates research and academic programs related to the Near East. It supports the degree program in African and Middle Eastern Studies. Center resources include the largest faculty, one of the most comprehensive library holdings, and the richest variety of Near and Middle Eastern studies courses of any institution in the Western Hemisphere. The center conducts publication, community outreach, and scholarly exchange programs.

**Institute for Research on Labor and Employment**

The interdisciplinary research program of the Institute for Research on Labor and Employment (IRLE) studies employment relationships including labor markets, labor law, labor and management relations, equal employment opportunity, occupational safety and health, and related issues. Its UCLA Labor Center offers social policy and employment relations programs to the public, unions, and management. The academic unit of the institute oversees the Labor Studies major and minor.

**Institute of Geophysics and Planetary Physics**

The Institute of Geophysics and Planetary Physics (IGPP) is a multicampus research unit of the University of California; the branch at UCLA researches climate dynamics, geophysics, geochemistry, space physics, biochemistry, and biology. Research topics include the nature of the Earth, moon, and other planetary bodies; global and regional environmental change; the origin of terrestrial life; dynamical properties of the sun and solar wind; and the nonlinear dynamics of complex systems. Facilities include analytical laboratories in geochemistry, meteoritics, glaciology, petrology, geochemistry, archaeology, and the origins of life; laboratories for experiments in fluid dynamics and high-pressure physics; developmental laboratories for instrumentation in space physics and seismology; and computational laboratories for large-scale numerical modeling.

**Intellectual and Developmental Disabilities Research Center**

The Intellectual and Developmental Disabilities Research Center (IDDRC) supplies laboratories and clinical facilities for research and training in intellectual and developmental disabilities. Interdisciplinary activities range from anthropological studies to molecular aspects of inherited metabolic diseases.

**James S. Coleman African Studies Center**

The Coleman African Studies Center (ASC) coordinates research on and teaching about Africa in the humanities, social sciences, and natural sciences, as well as in the schools of Arts and Architecture; Education and Information Studies; Law; Medicine; Public Affairs; Public Health; and Theater, Film, and Television. The center sponsors public lectures, seminars, publications, and academic exchanges with African institutions, and an outreach service to the Southern California community.

**Jules Stein Eye Institute**

The Stein Eye Institute is one of the best-equipped centers for research and treatment of eye diseases in the world. This comprehensive facility is dedicated to the preservation of vision and prevention of blindness, the care of patients with eye disease, and education in the broad field of ophthalmology. Outpatient, inpatient, and surgical treatments are available.

The Doris Stein Eye Research Center houses clinical facilities as well as new research and training programs concentrating on major eye diseases worldwide.

The Edie and Lew Wasserman Eye Research Center houses outpatient surgery clinics; faculty offices; and refractive, oculoplastic, and cataract services.

**Latin American Institute**

The Latin American Institute (LAI) is a major regional, national, and international resource on Latin America and hemispheric issues. The institute sponsors and coordinates research, academic and public programs, and publications on Latin America in the humanities, social sciences, and professional schools; and links its programs and activities with developments in the field and in other institutional settings. By combining instruction, research, and service—and by encouraging multidisciplinary and interdisciplinary approaches—the institute promotes the use of UCLA Latin American resources for the benefit of the campus, the broader community, and the public at large.
Molecular Biology Institute

The Molecular Biology Institute (MBI) promotes molecular biology research and teaching at UCLA, with emphasis on genomics, proteomics, and chemical biology. The institute houses the laboratories of 200 faculty members from 30 UCLA departments and the Institute for Genomics and Proteomics, as well as the administration of the Molecular Biology Interdepartmental PhD Program and the Graduate Programs in Bioscience consortium.

Plasma Science and Technology Institute

The Plasma Science and Technology Institute (PSTI) is dedicated to research of plasma physics, fusion energy, and the application of plasmas in other disciplines. Students, professional research staff, and faculty members study basic laboratory plasmas, plasma-fusion confinement experiments, fusion engineering and nuclear technology, computer simulations and the theory of plasmas, space plasma physics and experimental simulation of space plasma phenomena, advanced plasma diagnostic development, and laser-plasma interactions. They also study the use of plasma in applications ranging from particle accelerators to the processing of materials and surfaces used in microelectronics or coatings.

Ralph J. Bunche Center for African American Studies

The Bunche Center for African American Studies (CAAS) conducts and sponsors research on the African American experience, supports the African American studies curriculum, publishes research results, and sponsors community service programming. CAAS is one of four ORUs overseen by the Institute of American Cultures (IAC).

UCLA-DOE Institute for Genomics and Proteomics

The UCLA-DOE Institute for Genomics and Proteomics, funded through a Department of Energy (DOE) contract, conducts research in bioenergy, carbon capture, microbial genomics, and structural and functional studies of organisms and their constituents. Institute faculty members have joint appointments in academic departments and teach at both undergraduate and graduate levels. Major facilities include a biomedical cyclotron; advanced scanning equipment; and macromolecular crystallization, nuclear magnetic resonance, protein expression, and X-ray crystallography facilities.

Specialized Research Centers, Institutes, and Laboratories

Additional research centers, institutes, and laboratories advance scholarship in all fields. The breadth of research conducted on campus is reflected in diverse undertakings from behavior to computing, demography to disease, and language to politics. This sampling of current research entities offers a view into the scope of research units.

Social Sciences

California Center for Population Research
Center for Language, Interaction, and Culture
National Center for Research on Evaluation, Standards, and Student Testing
UCLA Anderson Forecast

Health Sciences

Center for HIV Identification, Prevention and Treatment Services
Fernald Child Study Center
Jonsson Comprehensive Cancer Center
Mary S. Easton Center for Alzheimer’s Disease Research

Engineering and Physical Sciences

Center for Autonomous Intelligent Networks and Systems
Center for Energy Science and Technology Advanced Research
Institute for Pure and Applied Mathematics
UCLA Logic Center

Galleries and Museums

Museums, galleries, and gardens offer eclectic resources ranging from the ancient to the avant-garde, helping to make UCLA the leading arts and cultural center in the West.

Fowler Museum at UCLA

The Fowler Museum at UCLA is internationally known for the quality of its collections. They encompass the arts and material culture of much of the world, with particular emphasis on West and Central Africa; Asia and the Pacific; and the Americas, past and present. It supports UCLA instruction and research and sponsors major exhibitions, lecture programs, and symposia. The museum is open to the public Wednesday through Sunday.
Grunwald Center for the Graphic Arts
Housed in the UCLA Hammer Museum, the Grunwald Center for the Graphic Arts holds a distinguished collection of over 45,000 prints, drawings, photographs, and artists’ books, including nearly 10,000 works from the prestigious Armand Hammer Daumier and Contemporaries Collection. A study and research facility for the benefit of students and the community, the center’s permanent holdings include significant European and American examples from the fifteenth century to the present. It is particularly noted for its collection of German Expressionist prints and works on paper by Matisse and Picasso, as well as the Richard Vogler Cruikshank Collection and the Frank Lloyd Wright Collection of Japanese prints. The center is open only by appointment.

Franklin D. Murphy Sculpture Garden
Situated on a picturesque five-acre expanse that spans the heart of north campus, the Murphy Sculpture Garden contains a collection of over 70 major works by Arp, Butterfield, Calder, Falkenstein, Hepworth, Lachaise, Lipchitz, Matisse, Moore, Noguchi, Rodin, Smith, Zuniaga, and many other late nineteenth- and early twentieth-century masters. All works in this distinguished collection are private gifts to UCLA. Tours may be arranged.

Meteorite Collection and Gallery
UCLA has the largest collection of meteorites on the West Coast and the fifth largest in the U.S. Many of the most important meteorites are displayed in the Meteorite Gallery located in 3697 Geology. The collection and gallery are a major resource for cosmochemical research and the teaching of planetary science.

New Wight Gallery
The New Wight Gallery is an exhibit space for visual arts, including student and faculty exhibitions, housed in 1100 Broad Art Center.

UCLA Hammer Museum
The Hammer Museum regularly presents its collection of impressionist and post-impressionist paintings by such artists as Cassatt, Monet, Pissarro, Sargent, and Van Gogh. The museum organizes and presents major changing exhibitions devoted to examinations of historical and contemporary art in all periods. Cultural programming—including children’s performance and storytelling series, music, poetry readings, and lunchtime art talks—are presented throughout the week.

Libraries
The UCLA Library, a campuswide network of libraries serving programs of study and research in many fields, is among the top 10 academic research libraries in North America. The total collections number more than 12 million volumes, 100,000 current serial titles, 950,000 e-books, and 700 subscription databases.

Reference librarians are available in all library units to answer questions about using online systems and to provide assistance with reference and research topics.

Students find materials through web-based library information systems. The UC Library Search connects all 10 UC campus libraries through a unified discovery and borrowing system. It contains records for all its holdings and other campus collections, including UCLA resources such as the Archive Research and Study Center of the Film and Television Archive, Chicano Studies Research Center Library, Ethnomusicology Archive, Social Science Data Archive, Instructional Media Collections and Services, and William Andrews Clark Memorial Library. The search system also includes library item location and circulation status.

Other available resources include WorldCat, Center for Research Libraries, and Online Archive of California catalogs; numerous abstracting and indexing databases; and gateways to other systems.

While continuing to develop and manage collections of traditional printed materials, the UCLA Library also makes a number of digital resources available for campus use through the library site. These include electronic reserves and electronic journals, texts, reference resources, periodical indexes, and abstracts.

Arts Library
Housed in 1400 Public Affairs Building, the Arts Library has more than 300,000 books on architecture, architectural history, art, art history, design, fashion and costume, film, television, photography as fine art, studio art, theater, urban design, and allied disciplines. It also contains the Elmer Belt Library of Vinciana, a special collection of rare books and incunabula about Leonardo da Vinci and related materials in Renaissance studies. Performing Arts Special Collections, housed in the Young Research Library, contain noncirculating materials including the Artists’ File; archival records of major Southern California motion picture studios and television production companies; scripts from film, television, and radio; animation art; personal papers of writers, directors, and producers; photographs and production
stills; and posters, lobby cards, press kits, and West Coast theater playbills.

**Charles E. Young Research Library**

The **Young Research Library** (YRL) primarily serves graduate research in the humanities, social sciences, education, public affairs, government information, and maps. Most of its collections are arranged in open stacks. The building also houses reference, circulation, graduate reserve, and periodicals services and the Microform and Media Service, with microcopies of newspapers, periodicals, and other materials. UCLA Library Special Collections contains rare books and pamphlets, primarily in the humanities, social sciences, and visual arts, from the fifteenth to twentieth century; University Archives; early maps and atlases; early California newspapers; manuscript collections; transcripts of oral history; ephemera; microfilm; tape recordings; prints; paintings; and drawings, including original architectural drawings.

**Eugene and Maxine Rosenfeld Management Library**

Located in the Anderson Graduate School of Management complex, the **Rosenfeld Management Library** houses materials on accounting information systems, arts management, business history, corporate history, entrepreneurship, finance, general management and management theory, industrial relations, international and comparative management, management information systems, management strategy and policy, marketing, operations, research, production and operations management, public/not-for-profit management, and real estate.

**Hugh and Hazel Darling Law Library**

The **Darling Law Library** collects published case decisions, statutes, and codes of the federal and state governments of the U.S. and other common law jurisdictions, legal treatises and periodicals in Anglo-American and international law, and appropriate international and comparative law holdings. The Law Library reports to the dean of the School of Law. It contains over 600,000 print volumes and over 35,000 electronic titles.

**Louise M. Darling Biomedical Library**

The **Darling Biomedical Library**, located in the Center for Health Sciences, serves all the UCLA health and sciences departments and schools and the Ronald Reagan UCLA Medical Center. Its collections focus on materials related to medicine, nursing, dentistry, public health, physiological sciences, biology, molecular biology, chemistry, biochemistry, zoology, plant sciences, psychology, and life sciences, as well as rare works in the history of health and life sciences, botanical illustration, and Arabic and Persian medical manuscripts. It contains over 683,778 print volumes and thousands of journal subscriptions.

**Music Library**

The collections of the **Music Library** in the Schoenberg Music Building include books, music scores, sheet music, video and sound recordings, microforms, and interactive media on Western music history and criticism; world music styles, cultures, and traditions; and music theory, aesthetics, philosophy, and organology. Performing Arts Special Collections, housed in the Young Research Library, include rare printed and manuscript books, scores, and opera librettos; personal papers of prominent Southern California composers, performers, and writers on music; and archives of film, television, and radio music.

**Powell Library**

**Powell Library** features collections and services in support of the undergraduate curriculum in the College of Letters and Science (humanities and social, life, and physical sciences). Course reserve materials—including books, articles, audiotapes, homework solutions, lecture notes, and Academic Publishing Service Readers—are available for loan. The **Campus Library Instructional Computing Commons** (CLICC), located on the first floor of Powell Library, gives students access to computers and multimedia equipment; and Night Powell offers study space in a late-night reading room. There are Inquiry Laboratories with research assistance and Undergraduate Writing Center services.

**Richard C. Rudolph East Asian Library**

Located in the Young Research Library, the **Rudolph East Asian Library** collects Chinese, Japanese, and Korean language materials in the humanities and social sciences. The collection is particularly strong in Japanese Buddhism, religion, Chinese and Japanese fine arts, Chinese archaeology, premodern history and classical literature on both China and Japan, and Korean literature and religion.

**Science and Engineering Library**

The **Science and Engineering Library** (SEL) collections on engineering, mathematics, and the physical sciences are
housed in two separate locations. SEL/Boelter in Boelter Hall houses materials on aeronautics, astronomy, and atmospheric sciences; bioengineering; chemical, civil, electrical, environmental, manufacturing, mechanical, and nuclear engineering; computer science and electronics; energy technology; mathematics; metals and materials; pollution; and statistics. SEL/Geology in the Geology Building houses materials on geology, geophysics, geochemistry, space physics, planetary science, regional geology, paleobiology, micropaleontology, invertebrate paleontology, ore deposits, geomorphology, hydrology, chemical oceanography, and all U.S. Geological Survey publications of western U.S. state geological surveys.

Special Archives and Collections

In addition to the extensive collections of the UCLA Library, a rich array of other information resources is independently managed by individual UCLA departments and centers.

Cultural Center Collections

The Bunche Center for African American Studies Library and Media Center contains materials reflecting the African American experience in the social sciences, arts, and humanities. The American Indian Studies Center Library houses a collection on American Indian life, culture, and state of affairs in historical and contemporary perspectives. The Asian American Studies Center Library/Reading Room features Asian American and Pacific Islander resources. Materials related to Chicano and Latino cultures are housed in the Chicano Studies Research Center Library. The William Andrews Clark Memorial Library contains rare books, manuscripts, and other noncirculating materials on English culture (1641 to 1800). The English Reading Room features a noncirculating collection of British and American literature, literary history, and criticism.

Film and Television Archive

The Film and Television Archive is the world’s largest university-based collection of motion pictures and broadcast programming. The archive holdings of over 350,000 motion pictures, 160,000 television programs, and 27 million feet of newsreel footage serve the UCLA community and national and international constituencies.

The Motion Picture Collection is the country’s largest collection after the Library of Congress. Among its outstanding collections are 27 million feet of Hearst Metrotone News film dating back to 1919. Other noteworthy holdings include studio print libraries from Twentieth-Century Fox, Para-


The Television Collection is the nation’s largest university-based collection of television broadcast materials. Its titles include kinescopes, telefilms, and videotapes spanning television history from 1946 to the present, with emphasis on drama, comedy, and variety programming. A special collection of over 100,000 news and public affairs programs is also maintained.

The archive exhibition program presents evening screenings and discussions that focus on archival materials, new work by independent filmmakers, and international films.

The Archive Research and Study Center (ARSC) in Powell Library offers on-site viewing of the Film and Television Archive collections, and research consultation to students, faculty, and researchers.

Instructional Media

Instructional Media Collections and Services, located in Powell Library, is the central UCLA resource for collection and maintenance of educational and instructional media. Materials from the collection are loaned to regularly scheduled UCLA classes and may be rented by organizations and individuals from the campus community and beyond. Staff members monitor compliance with UCLA and UC guidelines and federal copyright law governing the use of video recordings. Reference books from educational and feature-film distributors are available. Staff members assist in researching media on any subject and obtaining materials from outside sources.

The Instructional Media Laboratory offers access to course- or textbook-related audio, interactive, and video programs. Students, assigned by faculty members to study specific supplementary materials, may learn at their own pace and time.

Other Collections

The Ethnomusicology Archive houses over 150,000 sound and audiovisual recordings of folk, ethnic, and non-Western classical music. The Social Science Data Archive contains a collection of statistical databases for the social sciences. The UCLA Lab School Gonda Family Library features contemporary materials for children from kindergarten through junior high school and adult works on children’s literature.
The geography of Southern California is conducive to research in the natural sciences. This diverse region is a natural laboratory supported by numerous UCLA resources for study.

**Biological Collections**

The Biological Collections of the Ecology and Evolutionary Biology Department include marine fishes from the Eastern Pacific and Gulf of California; and birds and mammals primarily from the Western U.S., Canada, Mexico, and Central America. The department also maintains a more limited collection of amphibians, reptiles, and fossil vertebrates.

**Division of Laboratory Animal Medicine**

The Division of Laboratory Animal Medicine is responsible for the procurement, husbandry, and general welfare of animals required for teaching and investigative services. It also administers the campus veterinary medical and husbandry programs.

**Mildred E. Mathias Botanical Garden**

The Mathias Botanical Garden is a living museum with one of the most important botanical collections in the U.S. With specimens from all over the world, the seven-acre expanse on south campus is home to over 3,000 types of plants in a wide range of environments. The botanical garden also has a research herbarium containing 180,000 dried plant specimens. School and community group tours are available, as are individual guided tours.

**Stunt Ranch Santa Monica Mountains Reserve**

The University of California founded the UC Natural Reserve System (NRS) in 1965 to preserve undisturbed natural areas representing the state’s vast ecological diversity for students, teachers, and researchers from public and private educational institutions to use as outdoor classrooms and living laboratories. The Stunt Ranch Santa Monica Mountains Reserve, administered by the Los Angeles campus, officially joined the UC NRS in November 1995. The 310-acre site is a 40-minute drive from UCLA and includes fine examples of chaparral and oak woodland ecosystems. The reserve lends itself to programs that focus on the natural ecosystems and issues of resource management in the urban/wildland interface. Undergraduate and graduate courses in the departments of Anthropology; Earth, Planetary, and Space Sciences; Ecology and Evolutionary Biology; Geography; Physics and Astronomy; and the Institute of the Environment and Sustainability utilize Stunt Ranch and other NRS sites.

**UCLA Health System**

Consisting of Ronald Reagan UCLA Medical Center; UCLA Medical Center, Santa Monica; Resnick Neuropsychiatric Hospital at UCLA; UCLA Mattel Children’s Hospital; and the UCLA Medical Group, with wide-reaching primary- and specialty-care offices, UCLA Health is among the most comprehensive and advanced health care systems in the world, and is consistently ranked among the top hospitals in the nation and the West.

From its level-one trauma center and intensive-care units to The BirthPlace Westwood, the Ronald Reagan UCLA Medical Center on campus is equipped with the latest medical advances to provide world-class patient care. The UCLA Medical Center, Santa Monica is home to the UCLA Rape Treatment Center, which serves as a national model for the treatment of rape victims and their families.

**Student Services**

Like a small city, UCLA has its own police department and fire marshal, an equivalent to the phone company, health center, corner restaurants, and shops. Hundreds of services for the campus community facilitate academic and personal endeavors.

**Study Services**

From academic advising to advanced computer support, UCLA study services give students the tools they need to achieve academic success.

**Academic Counseling**

Many sources of academic counseling are available. Faculty advisers and counselors in the College and each school help students with major selection, program planning, academic difficulties, degree requirements, and petitions.

Advisers in each department counsel undergraduates concerning majors offered and their requirements, and possible career and graduate school options (see College and Schools and Curricula and Courses). In addition, graduate advisers are available in each department to assist prospective and currently enrolled graduate students.
Computer Laboratories

Student computer laboratories are supported through the Campus Library Instructional Computing Commons (CLICC), a collaborative effort of the Humanities Technology, Social Sciences Computing, Center for the Advancement of Teaching, and Powell Library. Some 15 computer laboratories are available throughout the campus, each with computers, peripherals, software, and services that cater to specific areas of study. See the departments listed above or Information Technology Services IT resources for more information.

Course Readers

ASUCLA Course Reader Solutions supplies custom course readers for faculty in both print and e-book formats, obtaining copyright authorizations each year. The office is located in the Textbooks department on the A level of Ackerman Union.

Course Websites

The Instructional Enhancement Initiative (IEI) assures that all UCLA undergraduate nontutorial courses offer an individual course website for faculty members, teaching assistants, and enrolled students. The sites facilitate the distribution of supplementary course materials, lecture notes, homework assignments, research links, and electronic communication, including virtual office hours and class bulletin boards for interactive question-and-answer sessions. Instructors decide which of these online capabilities are best suited to their course websites. Many course websites are available through Bruin Learn.

Disabilities and Computing Program

The Disabilities and Computing Program (DCP) supplies adaptive technology and information-access support and services to students, faculty, and staff with disabilities. Applications include voice input, Braille, large print, screen-reading software, and learning disability software. Consulting and training for individuals and departments are available. The program also offers Web accessibility evaluations and guidelines.

Internet

UCLA IT Services is the campus Internet service provider for UCLA students, faculty, and staff; and a vehicle for accessing campus network communication services. Bruin OnLine services include access to the campus backbone network and the Internet, e-mail accounts, Google Apps for UCLA, Box, and personal web hosting. Limited wireless Internet access is available on campus to anyone with a wireless enabled laptop or mobile device. Utility software can be downloaded from the IT Support Services website. Help desk services are available.

MyUCLA

MyUCLA is the easiest way for students to gain real-time access to their academic, financial, and personal records. The site is designed with an intuitive visual interface to walk students through procedural steps. MyUCLA offers a large number of services.

Students use the Class Planner to create plans prior to enrollment and are able to share these plans with counselors. MyUCLA also allows students to check enrollment appointments; view real-time enrollment counts; find classes and enroll; exchange or drop classes; change units and grade type; and view their study list, which includes information on class meeting times, final examinations, classmates, gradebook, textbooks, and class websites.

MyUCLA is used to declare candidacy and nonattendance, view Degree Audits, order transcripts and diplomas, change address information, view term grades and calculate grade-point average, find information on holds, order commencement tickets, access BruinBill and tax information, view financial aid awards and notices, and access UCLA Google e-mail accounts. The MyUCLA Message Center contains a database of answers and allows students to correspond with campus departments. MyUCLA also links to important communications regarding registration and UCLA policies.

Other features include notifications; voting in student association elections; personal calendar and event reservations; and links to UCLA online resources.

Students can access MyUCLA from Sunday noon through Tuesday 1 a.m., and Tuesday through Saturday from 6 a.m. to 1 a.m. the next day, including holidays. MyUCLA Features contains a full list of features.

Health and Safety Services

Students physical and mental health are priorities at UCLA. Multiple services, from clinics to specialists and medical retail, are available. Student safety services include prevention, emergency and safety systems, and the campus police department.

Arthur Ashe Student Health and Wellness Center

The Ashe Student Health and Wellness Center in Westwood Plaza is a full-service medical clinic available to all registered UCLA students. Most services are subsidized by registration fees, and a current BruinCard is required for
service. Its clinical staff of physicians, nurse practitioners, and nurses is board certified. It offers primary care, specialty clinics, and physical therapy. The center has its own laboratory and radiology sections. It operates the Bruin Health Pharmacy and U See LA Optometry in nearby Ackerman Union. Visits, core laboratory tests, X-rays, and preventive immunizations are all prepaid for students with the University of California Student Health Insurance Plan (UCSHIP).

The cost of services received outside the Ashe Center, such as emergency room services, is each student’s financial responsibility. Students are required to purchase medical insurance either through the UCLA-sponsored UCSHIP or other plans that provide adequate coverage. Adequate medical insurance is a condition of registration. See Student Health Insurance Fee under Registration in Undergraduate Study and Graduate Study.

Contact the Ashe Center for specific information on its primary care, women’s health, immunization, health clearance, optometry, travel medicine, and mind-body clinics, as well as dental care available to students at discounted rates. For emergency care when the Ashe Center is closed, students may obtain treatment at the Ronald Reagan UCLA Medical Center emergency room on a fee-for-service basis.

Mental Health Services

Services for mental health range from routine counseling and psychotherapy to crisis counseling.

Counseling and Psychological Services

Counseling and Psychological Services (CAPS) offers short-term personal counseling and psychotherapy in 221 Wooden Center West, 310-825-0768.

Psychologists, clinical social workers, and psychiatrists assist with situational stresses and emotional problems from the most mild to severe. These may include problems with interpersonal relationships, academic stress, loneliness, difficult decisions, sexual issues, anxiety, depression, or other concerns affecting the personal growth of students.

In addition, Campus Assault Resources and Education (CARE) counselors—individuals who provide information, support, and resources for members of the UCLA community who have been raped, sexually assaulted, stalked, or involved in a dating or domestic violence incident—can discuss options and alternatives, help identify and assist in contacting the most appropriate support services, and answer any questions that may arise.

Service is confidential and available to regularly enrolled students. Students are seen individually by appointment or may choose from a number of groups offered each term. Emergency and walk-in counseling is also available.

Student Safety and Security

For police, fire, or medical emergencies, call 911 from any campus phone. For nonemergency information, call UCLA Police at 310-825-1491.

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<tr>
<th>UCLA EMERGENCY NUMBERS</th>
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<tr>
<td>Police, Fire, or Medical Emergency</td>
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<td>UCLA Medical Center Emergency Room (24 hours)</td>
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UCLA Campus Assault Resources and Education (CARE) Prevention and Education Services—including workshops, self-defense classes, counseling, and referrals—increase physical and psychological preparedness and heighten awareness of the complex issues of rape, sexual assault, and relationship violence.

UCLA Consultation and Response Team (CRT) is a group of professional staff members charged with responding to reports of students in distress, with representatives from the College, Dean of Students, Counseling and Psychological Services, Residential Life, and UCLA Police.

The Center for Prehospital Care offers cardiopulmonary resuscitation (CPR) and basic emergency care courses, which can be organized most days and times.

The Office of Environment, Health, and Safety (EH&S) works to reduce workplace hazards on campus and to promote safety at all levels of the UCLA community. EH&S is a consulting resource for UCLA departments and personnel who want to learn how to make the workplace safe. It handles requests for safety information and training, regulatory interpretation and applicability, approval for potentially hazardous procedures, resolution of safety problems, and surveillance and monitoring of persons and workplaces.

UCLA Police Department

The UCLA Police Department (UCPD), 310-825-1491, is located at 601 Westwood Plaza. The sworn UCPD officers are empowered by the state of California with the authority to enforce all state and local laws. UCPD officers patrol the campus 24 hours a day, 365 days a year. They enforce all applicable local, state, and federal laws; arrest violators;
investigate and suppress crime; and provide a full range of police services and community safety programs.

The department is linked by computer to city, state, and federal criminal justice agencies that provide access to information concerning criminal records, wanted persons, stolen property, and vehicle identification. The detective unit handles criminal investigations, and detectives conduct interviews, arrest violators, execute search warrants, and file cases with the Los Angeles District and City Attorney offices.

UCPD police officers have primary jurisdiction over the UCLA campus, Reagan UCLA Medical Center, Center for the Health Sciences, Santa Monica-UCLA Medical Center, and University Apartments South. The city of Los Angeles Police Department does not routinely handle calls for service on campus or on most UCLA properties.

**Incident Reporting**

All requests for police service should be made to UCPD. All crime occurring on campus, the Center for the Health Sciences, and other UCLA properties should be reported immediately to UCPD to ensure appropriate action is taken. Crimes occurring off campus should be reported immediately to the local law enforcement agency. UCPD does take reports from students, faculty, and staff for incidents occurring in the Westwood area.

Police, fire, or medical emergencies can be reported by calling 911 from any telephone on campus. All landline telephones (UCLA, private, public) located on UCLA grounds are tied into the 911 emergency system. Emergencies can also be reported by using the blue-hooded or yellow Emergency Reporting Telephones located throughout the campus.

Calls made to 911 from a cell phone may not go directly to UCPD depending on the tower used by the cell phone at the time of the call. Callers should advise the dispatcher and ask if they are speaking with UCPD. If not, and time permits, callers may ask to be transferred to UCPD 911.

Nonemergency calls for service can be made by contacting the department at 310-825-1491. Campus community members are encouraged to program the department number into their cell phones and report on suspicious circumstances.

**Crime Statistics and Reports**

As required by the Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act and consistent with the amendments of the Violence against Women Reauthorizaton Act of 2014, UCLA prepares an annual report describing campus security policy and information concerning alcohol and drug use, crime prevention, crime reporting, and related matters. It also includes three years of crime statistics. For a printed copy, call 310-825-1491.

**Community Service Officers**

UCPD employs approximately 50 student community service officers (CSO) who are the additional eyes and ears (trained observers) of the department and act as noninterventional visual deterrents to crime. CSOs wear high-visibility uniforms and carry two-way police radios. They are dispatched by the department communications center and provide a direct link to police, fire, and medical aid. CSOs provide security service to a number of campus buildings, including residence halls and libraries. They are most well-known for CSO escorts. CSO escorts operate every day of the year from dusk to 1 a.m. (2 a.m. on Thursdays during academic quarters). Individuals requesting the service call the Communications Center at 310-794-WALK; a CSO is then dispatched to walk them safely to their destination. The service is available to UCLA students, staff, faculty, and visitors; and operates on campus and in the nearby residential areas.

The free UCLA SafeRide service, operated by UCLA Transportation, offers a safe, accessible, and convenient mode of transportation around campus at night (Monday through Thursday from 7 p.m. to 10:30 p.m. during academic terms). Rides can be requested through the UCLA SafeRide web application, available on Google Play and the Apple App Store; a UCLA login is required to access the app.

**Crime Prevention**

An involved community is one of the best defenses against crime. Therefore, the department is committed to a community policing philosophy and supports a proactive Crime Prevention Unit that works closely with community members to make UCLA a safer place to work, live, and learn. The unit gives presentations on vehicle and residential security, personal safety, office and equipment security, sexual assault prevention, and active shooter situations. Other programs are developed to meet the special needs of the campus community. Brochures and literature on crime prevention and personal safety are available online.

**Counseling and Psychological Services** (CAPS) and the Crime Prevention Unit offer presentations on sexual assault issues. Topics include acquaintance rape education and prevention, personal safety and prevention techniques, recovery from sexual assault, clear communications, and the continuum of violence and rape in society. The educational programs, tailored to meet the needs of individual audiences, include films, discussion groups, lectures, role-plays, and communication exercises. CAPS reaches students through the residence halls, sororities, fraternities, athletic teams, student clubs, and various student functions. Services include crisis intervention and advocacy for victims of sexual assault; short-term counseling and referrals for survivors, their families, and friends; support groups for rape victims; and services for sexual assault; short-term counseling and referrals for survivors, their families, and friends; support groups for rape victims; and services for sexual assault; short-term counseling and referrals for survivors, their families, and friends; support groups for rape
survivors; and self-defense classes and a lending library. CAPS works closely with the student housing offices and the police department to increase campus safety.

Several programs have been designed to increase the level of crime awareness and campus safety at UCLA. Incidents of criminal activity that pose a potential threat to the campus are brought to the attention of the community through campus crime alert bulletins. Additionally, those interested in receiving public safety bulletins and news briefs can sign up for the campus safety listserv.

Emergency Medical Services
UCPD provides emergency medical response for the campus community through the Emergency Medical Services (EMS) unit. The EMS unit is staffed by full-time UCLA students certified as emergency medical technicians (EMTs). Emergency medical services are available 24 hours a day, 365 days of the year. As in all emergencies, call 911 for this service.

Alcohol and Substance Abuse Education
Students with alcohol or substance abuse problems create safety and health risks for themselves and others. Such abuses can result in a wide range of emotional and behavioral problems. Therefore, UCLA makes available to every student a variety of alcohol and substance abuse awareness programs that are designed to discourage the use of illicit substances and to educate students on the merits of legal and responsible alcohol consumption. Counseling and Psychological Services (310-825-0768) provides counseling and referral assistance to students who are troubled by alcohol or substance abuse problems. The service is completely confidential and free to regularly enrolled students. All information and counseling is treated in accordance with UCLA and UC policies and state and federal laws. Any decision to seek assistance is not used in connection with any academic determination or as a basis for disciplinary proceedings.

Residential Housing
UCLA is the size of a small city, and provides residential housing to approximately 20,000 students. Housing facilities range from apartments designed for students with children to multi-student apartment complexes to high-rise student residence halls. UCPD and student housing staff work in partnership to create a safe and comfortable living and learning environment.

Campuswide security and safety programs for residents are held throughout the year to increase awareness of potential crime and improve campus safety. To keep residents immediately informed of major crime or threats to the campus, crime alert bulletins are posted in residential areas by the housing staff. However, residents must take an active role to ensure their own safety by exercising simple common-sense crime prevention techniques. Because the campus is open 24 hours a day, visitation to residence halls and apartments is not restricted. All residence halls have 24-hour access control on entrance doors, and during the evening hours access control monitors are stationed at each entrance. UCPD police officers and CSOs are also assigned to the residence halls.

UCLA-affiliated organizations that maintain off-campus facilities are under the shared jurisdiction of their local police department and the UCLA Police Department, which provides assistance to students, faculty, and staff; and/or referrals to neighboring police departments.

Safety Tips
The nature of the studies and research done at UCLA requires many campus buildings to be open 24 hours a day. Because the campus is so large and adjacent to the greater Los Angeles community, individuals with criminal intent are able to access UCLA grounds.

Regardless of the time of day or night, and no matter where persons are on campus, they should be alert, aware of their surroundings, and exercise common-sense safety precautions. Anyone parking on campus should remember to lock their vehicle and consider investing in a locking device and/or alarm. Use CSO escorts when walking at night. Keep room and apartment doors and windows locked at all times. Most important, anyone needing assistance should not hesitate to contact the department.

Take advantage of the safety services provided by UCLA and UCPD. See the Campus Safety Tips web page for more information.

Associated Student Services
Founded when UCLA opened in 1919, Associated Students UCLA (ASUCLA) delivers services to the campus community through student government, student media, and services and enterprises. Every registered UCLA student is a member of ASUCLA.

Student Government
Many facets of student life at UCLA are sponsored or organized by student government. Getting involved in the decision-making process is rewarding and offers avenues of expression students may not find in other aspects of their university experience.
Graduate Students Association

The Graduate Students Association (GSA) is the official organization representing UCLA graduate and professional students in academic, administrative, campus, and statewide areas. GSA appoints or elects graduate student members to important campus organizations and committees including the Student Fee Advisory Committee and Academic Senate committees. It sponsors graduate student orientation; the Graduate Student Resource Center and Graduate Writing Center; and various graduate student journals, programs, and social events, including the Melnitz Movies film program.

Undergraduate Students Association

Undergraduate student government is embodied in the Undergraduate Students Association (USA). Its governing body, the Undergraduate Students Association Council (USAC), is comprised of elected officers as well as appointed administrative, alumni, and faculty representatives. Every UCLA undergraduate student is a member of USA.

USA activities offer services to the campus and surrounding communities, and give students the opportunity to participate in and benefit from multiple programs. For example, its programs tutor youths and adults, address health needs of ethnic communities, combat poverty and homelessness, and better the environment.

Campus Events

Each year approximately 40,000 students, faculty, and staff attend programs of the Campus Events Commission (CEC), including a film program, speakers program, and performances by dozens of outstanding entertainers.

The Speakers Program brings entertainers, politicians, and literary figures to campus and presents two annual awards—the Jack Benny Award for comedic excellence and the Spencer Tracy Award for outstanding screen performance. Speakers and awardees have included notables as varied as Bill Gates, Whoopi Goldberg, and Tom Hanks.

The Concert Program brings new and popular performing artists like Rage Against the Machine or A Tribe Called Quest to UCLA for free and affordably priced concerts.

The Cultural Affairs Commission sponsors art exhibits in the Kerckhoff Hall Art Gallery, the JazzReggae Festival, Bruin Bash, Hip Hop Congress, and Worldfest.

Publications, Web, and Broadcast Media

Student publications and media offer a training ground for aspiring writers, journalists, photographers, and media managers while serving the communication needs of the campus community. Most publications offices are in Kerckhoff Hall. Information and applications are available online.

Daily Bruin

The Daily Bruin, with a circulation of 9,000, is one of the largest daily newspapers in Los Angeles. As the principal outlet for campus news, the Bruin is published each weekday of the academic year (once a week during the summer) and is distributed free from kiosks around campus and local areas. Students work as reporters, editors, designers, photographers, videographers, and radio reporters, as well as advertising sales representatives and marketing account executives. New staff members are welcome every quarter.

Newsmagazines

Seven print newsmagazines reflecting the diversity of the campus community are published each term. Al-Tālib, Fem, Ha’Am, La Gente, Nommo, OutWrite, and Pacific Ties deal respectively with issues relevant to the Muslim; feminist; Jewish; Chicano, Latino, and Native American; African American; lesbian, gay, bisexual, transgender, and queer; and Asian communities. Each includes news and features on political and cultural affairs both on and off campus. Prospective staffers are welcome.

Online Media

Student Media supports the Bruinwalk.com community portal. Features include UCLA professor reviews, used book trading, reviews of apartments near UCLA, and a campus calendar.

UCLA Radio

UCLA Radio broadcasts live over the Internet and features college alternative, hip-hop, jazz, and world music. It also covers select Bruin football, basketball, and baseball games and airs a lineup of sports talk shows. Studios are in Ackerman Union; all positions, including on-air, news staff, and advertising representatives, are open to students.

Yearbook

The UCLA yearbook, BruinLife, is one of the largest student publication efforts on campus. It contains photographs and information on undergraduate students, graduating seniors, athletic teams, fraternities and sororities, and campus activities. Students who would like to participate may contact the yearbook staff.

Graduating students can use BruinLife Photo Studio for their senior yearbook portraits.
Retail and Restaurants

Restaurants
ASUCLA operates more than a dozen restaurants and 10 coffee houses on campus, assuring a range of eating options from Italian to sushi. From the residence halls to the student union, a restaurant is never far. Hours vary, especially during summer and holidays. Locations of all the restaurants are posted online.

UCLA Store
The UCLA Store has six locations on campus. Author signings, sales, and other special events are announced in the Daily Bruin or on the UCLA Store website.

The UCLA Store–Ackerman Union has eight departments. Textbooks carries required and recommended texts for most undergraduate and many graduate courses, and operates a buyback service so students can sell used texts. BookZone offers reference books and a wide selection of titles in literature, science, history, and technical disciplines, including those by faculty authors. Computer Store carries personal computers, peripherals, accessories, and software at low academic prices. Essentials offers school and office supplies, including printer consumables. BearWear specializes in UCLA emblematic merchandise. Fast Track carries active sportswear and accessories for men and women. Beautique stocks makeup, Clinique skin care, and fashion accessories. Market is a convenience store, with snacks, health and beauty aids, gifts, and greeting cards. Ashe-Center-operated U See LA Optometry and Bruin Health Pharmacy are also in Ackerman Union.

UCLA Store–Health Sciences specializes in books and supplies for students in dentistry, medicine, nursing, public health, and related areas. UCLA Store–Lu Valle Commons carries art supplies and books, as well as textbooks and supplies for all on-campus Extension courses and selected academic programs (architecture and urban design, art, design, film, information studies, law, management, public policy, social welfare, theater, urban planning). North Campus Shop, South Campus Shop (Court of Sciences), Energy Zone (Wooden Center) and Hill Top Shop in Sunset Village are convenience store locations.

Other Services and Enterprises
ASUCLA oversees a variety of other services ranging from a post office to a hair salon. Most are located in Ackerman Union.

For students preparing to graduate, Graduation Etc. sells and rents caps, gowns, and hoods for degree ceremonies; and offers announcements, diploma mounting, portraits, and other graduation-related products and services.

Bruin Custom Print offers copying; binding; and banner, poster, and t-shirt printing. The shop streamlines the process involved in printing custom specialty products that need UCLA licensing and trademark clearance.

Student Life Services
From housing to transportation, basic student needs are facilitated by services designed to enhance all aspects of student living.

Banking
Automated teller machines representing several major banks are located in Ackerman Union, and near restaurants and shops around campus.

The University Credit Union and Wescom Credit Union have branch offices in Ackerman Union.

BruinCard
The UCLA BruinCard is a mandatory campuswide identification card that can electronically confirm student status and eligibility for services. Supportive photo identification—such as a driver’s license or state ID, passport, or military ID—is required when the card is issued.

The primary BruinCard benefit is convenience. It is a versatile card that serves the following functions: confirmation of student status; ID card for faculty, staff, and students; residence hall access and meal card; laundry, library, and recreation card; debit card (if activated) for purchases at campus stores and restaurants on and off campus; and discounted access to Santa Monica and Culver City bus lines.

Students with an outstanding financial, academic, or administrative hold may not receive BruinCard services until the hold is released by the initiating office. Information on outstanding holds and initiating offices is available on MyUCLA.

The BruinCard center is located in 123 Kerckhoff Hall. See BruinCard to check account balance, make deposits, view recent transactions, and report lost or stolen cards.

Bruin Resource Center
The Bruin Resource Center (BRC) in the Student Activities Center can help students navigate the campus and its many services by directing them to the correct office or personnel to meet their specific needs.

The center offers services to all UCLA students, including specialized services for transfer and re-entry students, students who are transitioning out of foster care, student parents, and veterans. Additional offerings include workshops and academic courses to help students develop practical skills and knowledge to succeed at UCLA.
The BRC also houses the Veteran Resource Office, which offers services specifically designed to assist students who are U.S. armed forces veterans or current military members.

Career Center
The UCLA Career Center, located in the Strathmore Building, offers career education, development, engagement, and support free to all UCLA students.

Career Support
Career educators offer assistance with completing self-assessments, exploring career options, evaluating graduate and professional school programs, identifying transitional skills, and conducting a successful job or internship search. Career educators also share information on internship opportunities and how to develop a professional network. A variety of workshops are offered year-round to help students become career-ready. Additionally, students can connect with employers through career fairs, employer information sessions, on-campus interviews for internships and jobs, and other employer-facing events.

Online Tools and Resources
Students looking for internships, jobs, and other experiential learning opportunities to develop their skills can find listings through Handshake, an online platform that connects UCLA students with thousands of employers looking to hire and recruit UCLA graduates, exclusively. Additional online resources are available for resume review; interviewing practice; searching for project-based internships, micro-internships, and international options; and tools that allow students to explore interests and career fields.

Center for Accessible Education
The Center for Accessible Education (CAE) in A255 Murphy Hall offers academic support services to regularly enrolled students with documented permanent or temporary disabilities in compliance with Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act (ADA) of 1990, and UC and UCLA policies. Services include campus orientation and accessibility, notetakers, reader service, sign-language interpreters, registration assistance, test-taking facilitation, special parking assistance, real-time captioning, assistive listening devices, on-campus transportation, adaptive equipment, support groups and workshops, tutorial referral, special materials, housing appeals, referral to the Disabilities and Computing Program, and processing of California Department of Rehabilitation authorizations. There is no fee for any of these services. All contacts and assistance are handled confidentially.

For information, see Disabilities and Computing Program under Study Services.

Central Ticket Office
Tickets for UCLA events are available at the Central Ticket Office (CTO) in the James West Alumni Center. As part of its service, the CTO offers students with current BruinCards discount tickets to campus athletic and cultural events and local movies. Students may also purchase tickets to off-campus events through Ticketmaster, as well as student discount tickets for Los Angeles-area buses.

Child Care
UCLA Early Care and Education (ECE) operates three accredited child care centers near UCLA and student housing. Care is available for children two months to six years old at most centers. Fees depend on the age of the child. A limited number of state grants and partial scholarship subsidies is available for eligible student families.

University Parents Nursery School is a UCLA-affiliated, parent-participation, multicultural cooperative school for two- through five-year-old children of UCLA students, faculty, and staff. It is located in the University Village Child Care Complex.

Dean of Students/Student Conduct
The Office of the Dean of Students in Murphy Hall helps students, either directly or by referral, with whatever needs they might have. Direct services include general counseling; sending emergency messages to students; and assisting in understanding UCLA and UC policies and procedures, including grievance procedures regarding student records, discrimination, and student debts.

The office publishes official notices in the Daily Bruin at various times during the year. Such notices are important, and all students are held responsible for the information in them.

The Student Conduct office administers campus discipline and enforces the standards of citizenship that students are expected to follow at UCLA. Standards involve complying with the policies and regulations governing this campus and being aware that violation of those policies or regulations can result in disciplinary action. Refer to Student Conduct Policies for more information.

International Student Services
International student services, based in Bradley International Hall, offer support for the UCLA international com-
community, particularly for non-immigrant students. An online orientation program helps international students become familiar with visa regulations, campus life at UCLA, and life in the U.S. Programs throughout the year allow them to share viewpoints with American students and the community.

Dashew Center for International Students and Scholars

The Dashew Center for International Students and Scholars assists students with questions about immigration, employment, government regulations, financial aid, academic and administrative procedures, cultural adjustment, and personal matters. The center seeks to improve student and community relationships; helps international students with language, housing, and personal concerns; and sponsors cultural, educational, and social programs. The center offers visa assistance for faculty members, researchers, and postdoctoral scholars.

Lesbian Gay Bisexual Transgender Campus Resource Center

The Lesbian Gay Bisexual Transgender Campus Resource Center in the Student Activities Center offers education, information, and advocacy services for the UCLA community. The center offers support groups, educational workshops, training seminars, and social activities; and maintains a library of 4,000 books, periodicals, and films. The staff provides confidential assistance and support to students, faculty, and staff who feel they have experienced harassment or discrimination or who wish to connect to the campus LGBTQ community.

Office of Ombuds Services

The Office of Ombuds Services responds to issues and concerns from students, staff, faculty, and administrators. Acting impartially, ombudspersons may investigate unresolved conflicts or facilitate the resolution of problems for which there are no established guidelines; and may also, where possible and when requested, assist in resolving an issue through mediation (including sexual harassment cases). The office is located in the Strathmore Building.

Parking and Commuter Services

Parking permits, ridesharing, and other commuting alternatives and services are offered through UCLA Transportation.

Commuter Services

Commuter programs offer information to help students get to and from campus without driving a car. These programs also help students use the extensive Los Angeles-area public transit network.

Students can use a trip planning tool to determine the best route to campus, or find a carpool or vanpool nearby. The Bruin Commuter Club offers special benefits and incentives to eligible UCLA students who ride public transit or carpool.

Students may also rent a car by the hour through Zipcar.

Parking Permits

Parking at UCLA requires a permit. The Bruin e Permit is paperless, and uses a vehicle’s license plate as its parking permit.

Students must be registered for the current term to apply for parking, and permits are not guaranteed. Parking offers are prioritized according to parking availability and school. Within each category, carpools have priority, and carpool permits are offered at a discounted rate. All carpool members must qualify under the carpool parking requirements. Students must reapply for parking each term.

Students living within ZIP code 90024 pay the residence hall parking rate. Students living in campus residence halls (excluding Regents Scholars) who have off-campus jobs, and commuter students who have extenuating circumstances, must complete an exemption application and supply supporting documents.

Effective winter quarter 2019, disabled students apply for parking in person at the UCLA Transportation lobby. This applies to students with permanent and short-term disabilities who have a DMV-issued disabled person placard or license plate.

Post Offices

Campus mail is handled by UCLA Mail, Document, and Distribution Services (MDDS), which offers full-service document processing and delivery for the campus community.

ASUCLA operates a U.S. Postal Service express post office on A Level in Ackerman Union.

Residential Services

UCLA Housing is the best guide for finding the right kind of accommodation for different lifestyles and budgets. It includes detailed information about the different residence options, dining plans, support and extracurricular programs, and an online housing application.

On-Campus Housing

Many students, especially those in their first year, choose to live on campus. Besides the convenience, campus living is a good way to meet other people and to find out about social
and academic activities. Four residence halls, six deluxe residence halls, two residential suites, and five residential plazas accommodate over 13,000 undergraduate students. All on-campus housing buildings are coed and within walking distance of classrooms. New first-year and transfer students who are admitted for fall quarter and apply on time are guaranteed housing. Graduate student housing is also available.

Rooms in undergraduate residences are furnished and usually shared between two or three students. Meals are served daily at residential restaurants, and students may choose from a variety of meal plans.

Students apply for on-campus housing, by posted deadlines, at the My Housing website. Students who apply for winter or spring quarter are assigned housing on a space-available basis in the order their applications are received.

Per-person rates for the academic year vary depending on housing type. See housing rates for current rates.

Residential Life is responsible for student conduct in all residential communities. Its professional and student staff members can counsel students on residential problems.

Facilitated by Residential Life, Living Learning Communities offers students with similar interests an opportunity to live together and participate in programs according to their academic, social, and personal needs and interests. Students can live in communities as varied as creative collective; first-to-go; gender, sexuality, and society; global health; interfaith; public service and civic engagement; sustainable living; technology and innovation; transfer experience; and various cultures.

Off-Campus Housing
Within walking distance of campus, UCLA maintains 13 undergraduate off-campus apartment buildings for full-time, single transfer, and students beyond their first year. Apartments vary from singles to four-bedroom units, with bedrooms usually shared by two or three students. Not all types of apartment spaces are available to entering students. Virtual tours are available.

Married, single-parent, and single graduate students are accommodated in eight off-campus apartments; some are located within walking distance of campus, others about five miles from campus and served by a campus shuttle. Apartments include furnished and unfurnished studio and one-, two-, and three-bedroom units. Assignment to several apartments is by wait list; students must be accepted to UCLA to apply.

Many of the fraternities and sororities at UCLA own chapter houses. Complete information and membership requirements are published by Fraternity and Sorority Life.

Student Legal Services
Through Student Legal Services in Murphy Hall, currently registered students with legal problems or questions about their legal rights can get assistance from attorneys or law students under direct supervision of attorneys. They help students resolve legal problems, including those related to landlord/tenant relations; accident and injury problems; criminal matters; domestic violence and harassment; divorces and other family law matters; automobile purchase, repair, and insurance problems; health care, credit, and financial aid issues; consumer problems; and UCLA-related issues. Assistance is available only by appointment.

Veterans Affairs Services
The veterans affairs benefits officer provides assistance with benefit information, waivers, enrollment certification, and coordinating transitions to and from active duty. For more information, see Registrar’s veteran services.

Part of the Bruin Resource Center, the Veteran Resource Office (VRO) helps veterans navigate UCLA and furnishes mentoring, guidance on educational benefits, and tools to succeed academically and personally through a variety of programs and services.

Student Activities
The opportunities to participate in extracurricular activities at UCLA are virtually unlimited, and are a good way for students to expand their horizons beyond classroom learning.

Clubs and Organizations
Joining a club or organization is a great way to meet other students with shared interests and to get involved in campus life.

Community Programs Office
The UCLA Community Programs Office (CPO) houses student-initiated community service projects that offer educational, legal, social, medical, and academic services to underserved communities in Southern California; seven student-initiated outreach projects that seek to improve the number of students from local underserved areas who attend colleges and universities; and five student-initiated retention projects that seek to ensure that all students who enter UCLA actually graduate. CPO programs foster a multicultural and ethnically diverse environment at UCLA.
Office of Fraternity and Sorority Life
Fraternities and sororities have been at UCLA since the early 1920s. Today UCLA is home to more than 70 national and local Greek-letter organizations that make up one of the largest Greek systems on the West Coast.

The Office of Fraternity and Sorority Life (FSL) interprets UCLA policies, procedures, and regulations, and acts as a liaison between established Greek organizations and UCLA. It coordinates Greek-letter social organizations that participate in programs such as the Greek Leadership Conference, Greeks against Sexual Assault (GASA), Greek Week, new member forums, dating expectations programs, intramural tournaments, and UCLA-sponsored programs.

Office of Residential Life
The Office of Residential Life hosts True Bruin Welcome and the Common Experience, and brings a variety of programs to the Hill to build a sense of community and offer social enrichment.

Student Organizations, Leadership, and Engagement
UCLA has over 1,000 different organizations recognized by Student Organizations, Leadership, and Engagement (SOLE)—more than are found on almost any other university campus in the country. Organizations registered with SOLE include political, recreational, community service, cultural, academic, religious, and residential clubs. It only takes three people to start a new club if their interests are not already represented. SOLE also handles complaints of misconduct against officially recognized student organizations.

Performing Arts
Concerts, dance recitals, and theater productions are all part of exceptional programs offered by the Ethnomusicology; Film, Television, and Digital Media; Music; Theater; and World Arts and Cultures/Dance departments, and by the Center for the Art of Performance at UCLA.

Center for the Art of Performance
Since 1937, the Center for the Art of Performance (CAP) at UCLA has been a premier West Coast showcase for world-class performing artists and ensembles as well as innovative new work in dance, music, theater, and performance art. The center presents more than 200 public concerts and events each year, often sponsoring debut performances of new works by major artists. Through the center, the campus hosts a varied and active performance program, ranging from regular concerts by the Los Angeles Chamber Orchestra to events with The Symphonic Body UCLA, Contra-Tiempo, Peter Sellars, Cassandra Wilson, Anoushka Shankar, Afro Latin Jazz Orchestra, Randy Newman, Bojofondo, Buddy Guy, and Young Jean Lee’s Theater Company. Subject to availability, discount tickets are offered to students, faculty, and staff.

Department Events
The Ethnomusicology Department offers students the opportunity to perform in various world music and jazz ensembles that give concerts listed in the department schedule of events.

The Film, Television, and Digital Media Department features student-directed films and television programs throughout the year, and the Theater Department presents a series of major productions to the general public. The School of Theater, Film, and Television annual Design Showcase West features rising entertainment designers; its week-long Film Festival celebrates film, digital media, animation, screenwriting, and acting that spans performance art to the classics.

The Music Department features performances by ensembles ranging from music theater to opera. Its Gluck Outreach Program and Music Partnership Program reach out to the community through free performances throughout Los Angeles and Southern California.

The World Arts and Cultures/Dance Department presents events and concerts involving department faculty members, guest artists, and students. Student performances include MFA concerts, an undergraduate and graduate student-produced concert, and the Senior Concert/Colloquium. Students also perform in more informal programs, such as the end-of-term student works festival or Pau Hana, that feature many world dance forms.

Recreation
To help students learn new skills, meet people with similar interests, relieve stress, and increase fitness, UCLA Recreation (UREC) oversees programs from intramural sports to outdoor adventures.

Intramural and Club Sports
The UCLA intramural sports program consists of team, dual, and individual sports competition in tournament or league play. Over 7,000 participants compete throughout the year in various sports activities ranging from basketball to water polo. UCLA students and recreation membership holders are eligible. Varying skill levels are offered in almost all activities, and the emphasis is on friendly competition.
Club sports offer students the chance to organize, coach, or participate in sports that fall beyond the scope of intramurals but are not offered at the varsity level. Coed teams exist in archery, badminton, boxing, Brazilian jiu-jitsu, climbing, cycling, dragon boat, equestrian, fencing, figure skating, golf, gymnastics, judo, kendo, powerlifting, quidditch, running, sailing, ski and snowboard, squash, swim, table tennis, taekwondo, tennis, track and field, triathlon, water skiing, wrestling, and wushu. Separate men’s and women’s teams exist in basketball, lacrosse, rugby, soccer, ultimate, volleyball, and water polo. There are also men’s teams in baseball, ice hockey, and rowing; and women’s ultimate, volleyball, and water polo. There are also men’s and women’s teams exist in basketball, lacrosse, rugby, soccer, ultimate, volleyball, and water polo. There are also men’s teams in baseball, ice hockey, and rowing; and women’s teams in beach volleyball, field hockey, and softball.

Outdoor Adventures

Outdoor Adventures offer students the chance to get away and enjoy the wonders of local and distant mountains and waterways. Activities designed for beginning to experienced outdoors people include bike rides, challenge course, camping, rock climbing, scuba diving, windsurfing, canoeing, kayaking, and hiking.

Class Programs

Noncredit instructional classes in arts, dance, fitness sports, golf, kayaking, martial arts, outdoor adventures, rock wall, rowing, sailing, standup paddling, surfing, swimming, tennis, water aerobics, windsurfing, yoga, and a variety of group fitness programs are offered for beginner and intermediate levels. Private lessons in arts, dance, martial arts, sports, aquatics, and other activities are also available. Fitness is being offered either as a recreation class or on a drop-in basis.

Facilities

For registered students who prefer independent recreation and exercise, UREC offers access to many facilities. The John R. Wooden Recreation and Sports Center has multiple gymnasiums; basketball, volleyball, and badminton courts; handball/racquetball/squash courts; a weight training facility; rock climbing wall; exercise/dance and martial arts studios; and a games lounge. The Bruin Fitness Center, located on the Hill, and Kinross Recreation Center, located in Westwood, offer closer-to-home exercise options for undergraduate and graduate students respectively. Sunset Canyon Recreation Center offers activities in an outdoor park setting that features a 50-meter swimming pool, 25-yard family pool, picnic/barbecue areas, play fields, outdoor amphitheater, six lighted tennis courts, sand volleyball court, two multipurpose sports courts, and various meeting rooms and lounges, as well as a challenge course. The UCLA Marina Aquatic Center offers sailing, windsurfing, kayaking, rowing, surfing, and other activities. Students also have the use of Pauley Pavilion, Drake Stadium, Hitch Basketball Courts, Sycamore Tennis Courts, Los Angeles Tennis Center, intramural field, Student Activities Center, and Kaufman Hall for recreational sports and activities.

Sports and Athletics

UCLA Athletics plays a major role in the UCLA mission to furnish a well-rounded education both in and out of the classroom. UCLA continues to live up to its reputation as a national leader in intercollegiate sports. The first school to win 100 National Collegiate Athletic Association (NCAA) championships, UCLA currently ranks second in the U.S. with 120. In 2021-22, UCLA men’s and women’s athletic programs placed 15th in the Directors Cup national all-around excellence survey; men placed in the top 10 three times and women seven times over the 11 years of the Capital One Cup. In the 23-year history of the USA Today survey, the men’s program placed first 11 times; the women’s program placed first five times in the final nine years. UCLA was the first university in the country to win five NCAA men’s and women’s championships in a single year (1981-82). UCLA competes as the Bruins, in colors of blue and gold.

UCLA also has produced a record number of professional athletes such as Kareem Abdul-Jabbar, Troy Aikman, Arthur Ashe, Eric Karros, Reggie Miller, Corey Pavin, Jackie Robinson, Bill Walton, and Natalie Williams; and Olympians such as medalists Gail Devers, Ann Meyers Drysdale, Lisa Fernandez, Jackie Joyner-Kersee, Karch Kiraly, Dot Richardson, Peter Vidmar, and Natasha Watley.

Athletic Facilities

The major indoor arena at UCLA is the famed Pauley Pavilion, which seats approximately 13,800 for UCLA basketball, volleyball, and gymnastics events. It was the site of the 1984 Summer Olympics gymnastics competition. The adjacent Drake Stadium is the site of UCLA soccer and track and field competitions, and of many outdoor events including the 1991 U.S. Olympic Festival. The Spieker Aquatics Center is home to the UCLA water polo, swimming, and diving teams. The Los Angeles Tennis Center—a 5,800-seat outdoor tennis stadium and clubhouse—was the site of the 1984 Olympic tennis competition. Easton Softball Stadium, which seats 1,300, is home to the women’s softball team. The Morgan Intercollegiate Athletics Center houses the UCLA Athletic Hall of Fame and the actual personal den of Coach John Wooden. Off-campus facilities include Jackie Robinson Stadium for varsity baseball and the renowned Rose Bowl in Pasadena, home of the UCLA football team.

Intercollegiate Sports

UCLA Athletics is a member of the Pac-12 Conference.
Men’s teams have won an overall total of 77 NCAA titles—second highest in the nation—including 20 in volleyball, 16 in tennis, 12 in water polo, 11 in basketball, eight in track and field, four in soccer, two each in golf and gymnastics, and one each in baseball and swimming. Students can participate on the varsity level in baseball, basketball, cross country, football, golf, soccer, tennis, track and field, volleyball, and water polo.

Women’s teams have won an overall total of 44 NCAA titles—second highest in the nation—including 12 in softball, seven in water polo, seven in gymnastics, five in track and field, four in volleyball, three in golf, two each in beach volleyball, soccer, and tennis. Students can participate on the varsity level in basketball, beach volleyball, cross country, golf, gymnastics, rowing, soccer, softball, swimming and diving, tennis, track and field, volleyball, and water polo.

UCLA Alumni Association

Through 85 years of serving the UCLA community, the UCLA Alumni Association has more than 92,000 members, making it one of the largest alumni groups in the nation. Whether a person is a recent graduate, a pioneer Bruin, or somewhere in between, membership in the Alumni Association is the best way to stay connected to UCLA and its growing excellence. Membership dues enable the Alumni Association to serve as an advocate on campus and to play the vital role of guardian of the value of every UCLA degree. Dues also support student programs such as Beat SC Rally, I Love UCLA Week, Locks of Love, Dinners for 12 Strangers, Spring Sing, Alumni Day, senior events, class reunions, career events, and a scholarship program.

The association offers many benefits and services, including alumni career and travel services. Members make friends, pursue lifelong learning, save money, and make a difference. UCLA graduates, Bruin parents, and friends of UCLA are invited to take advantage of all the association has to offer. Offices are in the James West Alumni Center.
Undergraduate Study

Undergraduate students at UCLA can earn bachelor degrees in 141 majors in the College of Letters and Science and eight professional schools: Henry Samueli School of Engineering and Applied Science; Herb Alpert School of Music; Jonathan and Karin Fielding School of Public Health; Meyer and Renee Luskin School of Public Affairs; School of the Arts and Architecture; School of Education and Information Studies; School of Nursing; and School of Theater, Film, and Television.

In addition to its record of academic excellence, UCLA offers undergraduate students an extraordinary opportunity to participate in undergraduate research, internships and community service, a variety of undergraduate programs and seminars, and prepares the next generation for leadership roles after graduation.

Shared Governance

Undergraduate degree programs, courses, and requirements are governed by the Undergraduate Council; College and school faculty executive committees; and committees for general education, Writing II, and diversity requirements.

Undergraduate Council

The Undergraduate Council is a standing committee of the UCLA Academic Senate. The council is responsible for the establishment of policy and standards for undergraduate education at UCLA, recommends to the Legislative Assembly programs that lead to new degrees, and delegates authority to College and school faculty executive committees.

Undergraduate Education Division

Led by the dean for undergraduate education, the Division of Undergraduate Education is a campuswide advocate for undergraduate education. Among its goals are to enrich the quality of the academic experience of undergraduate students, help students find meaningful pathways to timely degree completion, and prepare students for life after college. The division oversees the general education curriculum and offers programs including Fiat Lux seminars, cluster courses, and New Student Academic Programs; as well as the Academic Advancement Program, Center for Academic Advising in the College, Center for Community Engagement, Center for Undergraduate Research, and College Honors programs.

Undergraduate Admission

Undergraduate Admission
1147 Murphy Hall
310-825-3101

Prospective undergraduate students should give careful thought to adequate preparation in reading, writing, mathematics, laboratory sciences, languages, visual and performing arts, and other subject areas related to a degree objective or major. To be competitive, UCLA applicants need to present an academic profile much stronger than that represented by the minimum UC admission requirements. Undergraduate Admission invites prospective students to visit UCLA for individual or group tours of the campus. Reservations are required.

Application for Admission

Prospective students apply for admission to UCLA for the fall quarter by completing the UC Application for Admission and Scholarships.

One application is used for all nine UC campuses with undergraduate programs. Students apply to one UC campus with a nonrefundable application fee; an additional fee is charged for each additional campus. Students may only apply to one College or school at UCLA.

When to Apply

All majors and programs in the College of Letters and Science; Henry Samueli School of Engineering and Applied Science; Herb Alpert School of Music; Jonathan and Karin Fielding School of Public Health; Meyer and Renee Luskin School of Public Affairs; School of the Arts and Architecture; School of Education and Information Studies; School of Nursing; and School of Theater, Film, and Television are open for fall quarter. The application filing period is October 1 through November 30 of the prior year. See how to apply for up-to-date information on application procedures.

Admission Notification

The UC Application Center sends e-mail notices to acknowledge receipt of applications. Subsequently, UCLA Undergraduate Admission notifies students of the admission decision. Fall-quarter freshman applicants are notified in late March; transfer applicants are notified in late April. Students who are offered admission are asked to submit a Statement of Intent to Register and a Statement of Legal
Residence. A nonrefundable deposit, also required at this time, is applied to the student services fee as long as students register in the term to which they are admitted.

Entrance Requirements
Entrance requirements established by the University of California follow the guidelines set forth in the California Master Plan for Higher Education, which requires that the top 12.5 percent of the state’s high school graduates be eligible for admission to the University of California. Requirements are designed to ensure that all eligible students are adequately prepared for university-level work.

Fulfilling the minimum admission requirements does not assure admission to UCLA. Admission is based on demonstrated high scholarship in preparatory work going well beyond the minimum eligibility requirements. Honors-level high school, and Advanced Placement, International Baccalaureate, and transferable college courses are good preparation regardless of the desired major. UCLA offers admission to those students with the best overall academic preparation, viewed in the context of applicants’ academic and personal circumstances, extracurricular and volunteer experiences, and the overall strength of the UCLA applicant pool. For details, see undergraduate admission.

Admission as a Freshman
Students are considered freshman applicants if they have not enrolled in a regular session of any college-level institution since graduation from high school. Students who attend summer session immediately following high school graduation are still considered freshman applicants.

Minimum Admission Requirements
To be considered for admission as a freshman, students must meet the subject and grade-point average (GPA) requirements.

Subject Requirement
The subject requirement, sometimes called A to G requirements, is a sequence of high school academic courses required for admission to the University of California. Each course must be completed with a grade of C or better. The requirement consists of 15 year-long courses, with 11 completed prior to the beginning of 12th grade. These are the minimum requirements; students should exceed these requirements whenever possible.

A. History/Social Science. Two years of history/social science, including one year of world history, cultures, and historical geography; and one year of U.S. history, or one-half year of U.S. history and one-half year of civics or American government

B. English. Four years of college-preparatory English that include frequent writing, from brainstorming to final paper, as well as reading of classic and modern literature. No more than one year of ESL-type courses may be used to meet this requirement

C. Mathematics. Three years of college-preparatory mathematics, including or integrating the topics covered in elementary and advanced algebra and two- and three-dimensional geometry. Mathematics courses completed in the seventh and/or eighth grades and approved integrated mathematics courses may be used to meet part or all of this requirement

D. Science. Two years of college-preparatory science, including or integrating topics that provide fundamental knowledge in two of these three subjects: biology, chemistry, or physics. One year of approved interdisciplinary or earth and space sciences course may be used to meet one year of this requirement

E. Language Other than English. Two years of the same language—or coursework equivalent to the second level of high school instruction—including emphasis on speaking and understanding, development of awareness and understanding of the cultural context around the target language, practice with reading and composition, and instruction on grammar and vocabulary. Language courses taken in seventh and/or eighth grade may be used to meet part or all of this requirement. American Sign Language and classical languages such as Greek and Latin are acceptable

F. Visual and Performing Arts. One year-long visual and performing arts course selected from dance, drama/theater, music, visual art, or interdisciplinary arts

G. College Preparatory Electives. One year (two semesters), in addition to those required in A through F, or one year (two semesters) approved in the elective category

Subject Requirement Summary

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<tr>
<th>Subject Requirement</th>
<th>Requirement</th>
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<tbody>
<tr>
<td>A. History/Social Science</td>
<td>2 years</td>
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<tr>
<td>B. English</td>
<td>4 years</td>
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<tr>
<td>C. Mathematics</td>
<td>3 years</td>
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<tr>
<td>D. Laboratory Science</td>
<td>2 years</td>
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<tr>
<td>E. Language Other than English</td>
<td>2 years</td>
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<tr>
<td>F. Visual and Performing Arts</td>
<td>1 year</td>
</tr>
<tr>
<td>G. College Preparatory Electives</td>
<td>1 year</td>
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Grade-Point Average Requirement
California residents are eligible for admission to the University of California with a 3.0 grade-point average; nonresidents are eligible with a 3.4 GPA. Minimum eligibility does not guarantee admission to UCLA.
Standardized Testing
Scores submitted as part of an application may be used to determine eligibility for the California statewide admissions guarantee, as an alternative method of fulfilling minimum requirements for eligibility, or for course placement once admitted.

More information regarding the University of California testing policy may be found on the UC admission website.

Admission Selection
UCLA selects students using a carefully designed holistic evaluation process that takes into account an applicant’s achievements, both academic and nonacademic, in the context of the opportunities available. Among other factors, holistic evaluation specifically considers academic grade-point average; the quality, quantity, and level of coursework taken; sustained participation in activities that develop academic and intellectual abilities; leadership and initiative; employment and personal responsibilities; and overcoming life challenges related to personal or family situations.

Because admission requirements and selection criteria may change, freshman applicants should see freshman admission process for the most complete and up-to-date information.

Admission as a Transfer Student
Students are considered transfer applicants if they have enrolled in a regular fall, winter, or spring session at another college or university or in college-level extension courses after completion of high school. (This does not include attending a summer session immediately following high school graduation.) Students may not disregard their college record and apply for admission as a freshman.

In accordance with the California Master Plan for Higher Education, first preference is given to California community college applicants. Each application receives a comprehensive evaluation, integrating all available information. Students attaining senior standing are generally not admitted.

Academic criteria are as follows: junior-level standing (60 semester/90 quarter transferable units completed) by the end of the spring term before transfer, grade-point average in transferable courses, significant preparation for the major, completion of the English composition and mathematics requirements, and progress toward completion of the Intersegmental General Education Transfer Curriculum (IGETC), another UC campus general education requirements, or UCLA general education requirements.

Because admission requirements and selection criteria may change, transfer applicants should see transfer admission for the most complete and up-to-date information.

Intercampus Transfers
Undergraduate students registered in a regular session at any UC campus (or those previously registered who have not since registered at any other school) may apply for transfer to another campus. Submit the UC Application for Transfer Admission and Scholarships with the required application fees. The filing periods and admission requirements are the same as those for new applicants. Students who have attended another UC campus and wish to be considered for admission to UCLA must have been in good standing when they left their previous UC campus. Intercampus transfers are not automatic; students must compete with all other applicants and must meet UCLA transfer admission requirements.

Transfer Credit and Credit by Examination
UCLA awards unit credit to transfer students for certain courses completed at other regionally accredited colleges and universities. To be accepted for credit, the courses must be comparable to those offered by the University of California, as determined by Undergraduate Admission. All courses that meet the criteria are used in determining eligibility for admission.

To convert semester units into quarter units, multiply the semester units by 1.5. For example, 12 semester units x 1.5 = 18 quarter units.

College credit for examinations given by national testing services is generally not allowed, except for the AP Examinations given by the College Board and the International Baccalaureate higher-level examinations. See transfer credit for more information.

International Applicants
To be considered for admission to the University of California, international students must have completed secondary school with a superior average in academic subjects and have earned a certificate of completion that would enable them to be admitted to a university in the home country.

The application for admission, copies of official certificates, and detailed records of all secondary schools attended should be submitted as early as possible after the filing period opens. This allows time for the necessary correspondence and, if students are admitted, to obtain passport visas.

English Language Proficiency
Students whose native language is not English must have sufficient command of English to benefit from instruction at UCLA. First-year undergraduate students who have not
otherwise satisfied the Entry-Level Writing requirement and who have not taken the Analytical Writing Placement Examination (AWPE) by the time they enter UCLA must take the AWPE in their first term at UCLA. Results of the AWPE are reviewed to determine which credit-bearing English composition courses the student may need to complete in order to satisfy the Entry-Level Writing requirement.

Second Bachelor’s Degree
By policy, UCLA does not admit students into any undergraduate program if they already hold a bachelor’s degree.

Registration
Registrar’s Office
1113 Murphy Hall
Registration consists of paying fees and enrolling in classes. Students enroll in UCLA, and in the College or one of the professional schools.

1. Registration fees and other UCLA charges are due the 20th of each month. BruinBill accounts can be viewed through MyUCLA.

2. Enrollment in classes is completed through MyUCLA. Students must complete both processes by the established deadlines to be officially registered for the term.

Fees and Payment
Details on fee payment, enrollment procedures, and deadlines are on the Registrar’s website.

Electronic Billing
BruinBill accounts are administered electronically (e-bill) through MyUCLA. Financial activity is displayed for the current term, as well as account activity for the last 24 months. Students can pay their BruinBill account electronically using an electronic check with no fee; or with American Express, Discover, MasterCard, and VISA credit cards with a fee.

Annual Undergraduate Fees
Although the exact cost of attending UCLA varies, there are some fees that all UCLA students must pay. UCLA does not charge on a per-unit basis for undergraduate students in regular academic terms.

Each entering and readmitted student is required to submit a Statement of Legal Residence. Students classified as nonresidents of California must pay nonresident supplemental tuition in addition to registration fees. Legal residents of California are not required to pay nonresident supplemental tuition. For a definition of residence and nonresidence, see Residence for Tuition Purposes.

Student Services Fee
The Student Services Fee covers student expenses such as counseling, facilities, registration, graduation, and health services. The fee is charged whether or not students make use of these services.

Course Materials and Services Fees
The College of Letters and Science and each school are authorized to assess course materials and services fees. Some of these fees are assessed based on actual enrollment at the end of the fourth week of classes. Students are responsible for ensuring that all study list errors and omissions are corrected prior to the end of the second week. All students in a course with an approved course materials and services fee are assessed the fee, regardless of major. The fee is nonrefundable. Students who are approved to add a course after the third week of instruction are required to pay the course materials and services fee for the entire term.

Fee amounts are available on the Registrar’s course fees web page.

Instructional Enhancement Initiative Fee
The instructional enhancement initiative (IEI) fee supports technology in undergraduate education. The fee helps support course websites and online tools, computer laboratories, and software.

Miscellaneous Fees
Miscellaneous fees include charges for late registration fees payment. Late fees also apply if students file their study list late or do not pay BruinBill balances on time. Fees are charged if any check is returned by a bank for any reason. Charges are assessed for most petitions and other special requests. Study list, document and service, transcript-related, and degree and diploma fees are published on the Registrar’s website.

Student Health Insurance Fee
All undergraduate students are automatically assessed for and enrolled in the University of California Student Health Insurance Plan (UCSHIP) as a condition of registration at UCLA. Continued enrollment in a qualified health insurance plan is mandatory during all registered terms. UCHP covers medical, vision, dental, and behavioral health services.
The UCSHIP fee is billed each term along with other UCLA fees. UCSHIP fulfills all requirements mandated for a qualified health insurance plan as defined by the University of California. The Ashe Student Health and Wellness Center is the primary health-care provider for UCSHIP, and where all nonemergency medical care is initiated.

Nonregistered students (those who withdraw, or are on approved leave or planned academic leave) may have access to UCSHIP services under certain conditions. Contact the Ashe Center to learn more.

UCSHIP Waiver

Students may waive UCSHIP if they maintain active enrollment in a qualified health insurance plan that meets all established requirements, apply for a waiver within established deadlines each term, and correctly complete the online waiver form. Students are responsible for providing complete and accurate information. Third-party individuals may not waive UCSHIP for a student. Waivers must be submitted before the term fees payment deadline. Deadlines are strictly enforced, and no refunds are issued after the deadline. For more information, see the Ashe insurance web page.

Fees Notice

All fees are subject to change without notice by the Regents. Current academic year fees and updated information is available on the Registrar’s fees web page.

Fee Refunds

Students who formally withdraw from UCLA may receive partial refunds of fees. For more information, see Withdrawal in Policies and Regulations. Consult the Registrar’s refunds web page for policy details and specific refund deadlines for each term.

Fee Waiver Requests

Late registration, processing, and penalty fees are waivable on request in writing to the office assessing the fees only if they were incurred through the fault of UCLA, or because a student suffered sudden and debilitating injury or accident.

Reduced Fee Programs

UCLA recognizes the need for part-time study in special circumstances. Undergraduate resident students—when properly approved by the dean of their College/school for enrollment in 10 or fewer units—may be eligible for a one-half reduction in tuition. The reduction is based on total units enrolled as of Friday of the third week of classes. Students should contact their College or school for eligibility requirements. Students must file a Fee Reduction Request with the academic dean’s office by Friday of the second week. Except for these qualified and approved part-time students, there is no reduction in tuition, or in student services; Ackerman Student Union; Wooden Center; student programs, activities, and resources complex (SPARC); Undergraduate Students Association fees; or other campus-based fees. Undergraduate nonresident students pay only half the nonresident supplemental tuition fee.

Full-time UC employees may apply for a reduction of tuition and the student services fee at their campus human resources office. Students who use the part-time fee reduction may not also use the UC employee reduction.

Class Enrollment

New students should see an academic counselor before enrolling in classes (counseling is required in the Henry Samueli School of Engineering and Applied Science). Counselors help new students select courses and formulate a schedule tailored to their academic interests or degree objectives.

New Student Sessions take new students through a step-by-step process designed to ensure that they enroll in an effective program.

Enrollment

Students enroll in classes through MyUCLA during assigned times—called enrollment appointments—when they are allowed to enroll. The Class Planner feature allows students to create class plans prior to enrollment, share plans with counselors, and quickly add classes during their enrollment appointment. Students use the Find a Class and Enroll feature to search the Schedule of Classes and add available classes to their class plan or study list. MyUCLA is also used to view enrollment appointments; drop classes; change grade type and number of units; exchange classes; and view the study list, which includes information on class meeting times, final examinations, classmates, grades, textbooks, and class websites. For more information, see Registrar’s study list and enrollment policies web pages.

For classes that require written approval or specialized processing, students may inquire about processing steps through MyUCLA Message Center.

Study List

A study list is the record of courses in which a student is enrolled for the term. At 11:59 p.m. on Friday of the second week of instruction the study list of enrolled courses
becomes official, and all wait lists are eliminated. Students should verify their study list through MyUCLA after each enrollment transaction. Students are responsible for all courses and the grading basis as listed on MyUCLA, and cannot receive credit for courses not listed.

After Friday of the second week, most changes to the official study list can be made through MyUCLA. In some cases, a fee may apply. Some changes require an Enrollment Petition along with approval signatures.

See the Registrar’s study list web page for deadlines and complete instructions.

Errors or omissions should be corrected before the College or school deadlines for changes by petition. Unapproved withdrawal from or neglect of a course entered on the study list results in a failing grade.

**Wait List**

Some departments establish wait lists for classes that are full. If a student in the class drops, the seat is filled by a student on the wait list. Students can check enrollment status through MyUCLA. Position on a wait list does not indicate enrollment. Students on a wait list should not assume they will be added to a class.

Wait lists are maintained through Friday of the second week of instruction unless a department deletes them earlier.

**Concurrent Enrollment**

Concurrent enrollment—defined as taking courses during regular sessions for credit at UCLA and, at the same time, at a non-UC institution, including UCLA Extension—is not permitted except in extraordinary circumstances; and no credit is given for such courses unless the approval of the UCLA College or school has been obtained by petition prior to enrollment.

**Intersegmental Cross-Enrollment Program**

Undergraduate students enrolled in any campus of the California community colleges, the California State University, or the University of California may enroll without formal admission in a maximum of one course per academic term at a campus of either of the other systems at the discretion of the appropriate campus authorities on both campuses on a space-available basis per the California Education Code sections 66755 and 66756 (amended by California Senate Bill 361 passed in 1999). Enrollment in pre-college courses is excluded.

UCLA students qualify for intersegmental cross-enrollment if they meet all the following requirements:

1. Complete at least one term at UCLA as a matriculated student
2. Enroll for a minimum of 6 units for the current term
3. Earn a grade-point average of 2.0 (C) for work completed
4. Pay appropriate tuition and fees at UCLA for the current term
5. Complete appropriate academic preparation as determined by the host campus
6. Have California resident status

Obtain a concurrent enrollment application from the College or school. An administration fee is charged for each academic term such enrollment is requested.

**Intercampus Visitor Program**

Undergraduate students enrolled at one campus of the University of California may have the opportunity to attend another UC campus for one quarter or semester on the Intercampus Visitor Program. Students should observe the application deadlines. Applications are reviewed by a student’s College or school.

- **College of Letters and Science**
  - Center for Academic Advising in the College, A316 Murphy Hall
- **School of the Arts and Architecture**
  - Office of Student Services, 2200 Broad Art Center
- **School of Education and Information Studies**
  - Office of Student Services, 1002 Moore Hall
- **Henry Samueli School of Engineering and Applied Science**
  - Office of Academic and Student Affairs, 6246 Boelter Hall
- **Herb Alpert School of Music**
  - Office of Student Affairs, 1642 Schoenberg Music Building
- **School of Nursing**
  - Student Affairs Office, 2-147 Factor Building
- **Meyer and Renee Luskin School of Public Affairs**
  - Student Services Office, 3250 Public Affairs Building
- **Jonathan and Karin Fielding School of Public Health**
  - Office of Undergraduate Student Services, 16-059 Center for Health Sciences
- **School of Theater, Film, and Television**
  - Student Services Office, 103 East Melnitz Building
Simultaneous UC Enrollment

Undergraduate students may enroll simultaneously in courses offered by another UC campus. Eligible students must be registered (fees paid), in good standing, and enrolled in at least 12 units at UCLA. Students may simultaneously enroll in no more than one UC host-campus course not to exceed 6 units. Before attending the host campus, both campuses must give approval. Approval to enroll simultaneously on another UC campus does not guarantee credit toward specific degree or general education requirements. Application of host-campus courses to UCLA graduation requirements is determined by the College or school. Details are on the application form. Obtain applications and directions for submitting forms from the following offices:

- College of Letters and Science
  Academic Advancement Program, 1209 Campbell Hall
  Center for Academic Advising in the College, A316 Murphy Hall
  College Honors Programs, A311 Murphy Hall
  Student Athletics, Morgan Center
- School of the Arts and Architecture
  Office of Student Services, 2200 Broad Art Center
- School of Education and Information Studies
  Office of Student Services, 1002 Moore Hall
- Henry Samueli School of Engineering and Applied Science
  Office of Academic and Student Affairs, 6246 Boelter Hall
- Herb Alpert School of Music
  Office of Student Affairs, 1642 Schoenberg Music Building
- School of Nursing
  Student Affairs Office, 2-147 Factor Building
- Meyer and Renee Luskin School of Public Affairs
  Student Services Office, 3250 Public Affairs Building
- Jonathan and Karin Fielding School of Public Health
  Office of Undergraduate Student Services, 16-059 Center for Health Sciences
- School of Theater, Film, and Television
  Student Services Office, 103 East Melnitz Building

The application is also available on the Registrar’s simultaneous enrollment web page.

Immunization Requirements

UCLA requires that all incoming students be vaccinated against or show immunity to multiple infectious diseases consistent with guidelines of the American College Health Association, California Department of Public Health, and U.S. Centers for Disease Control and Prevention (CDC). These requirements help protect the health of students and the entire campus community. Students submit their immunization history to the Ashe secure patient portal. See immunization requirements for more information.

Financial Support

Financial Aid and Scholarships
A129J Murphy Hall
310-206-0400

The priority deadline for filing all undergraduate financial aid applications for the regular academic year is March 2. Applications received after the deadline are considered late, and limited aid is offered.

The Financial Aid Handbook is available on the Financial Aid and Scholarships forms and publications web page.

Application for Financial Aid

Students do not need to come from low-income families to qualify for financial aid. However, those who apply for need-based aid—including grants, loans, work study, and some scholarships—must demonstrate financial need, which is defined as the difference between the cost of attending UCLA and the amount that they and their families should be able to contribute.

Financial aid is not available for international students.

Students attending UCLA summer sessions, summer travel programs, summer institutes, or UC cross-campus summer programs and in need of financial aid must submit a summer financial aid application in addition to the Free Application for Federal Student Aid (FAFSA). Summer applications are available on MyUCLA (in the Finances and Jobs section).

To qualify for aid, students must also comply with Financial Aid standards for satisfactory academic progress.

FAFSA Free Application for Federal Student Aid

To evaluate financial need, all citizen and permanent resident students who apply for aid must provide financial information on the Free Application for Federal Student Aid (FAFSA). If students are financially independent according to the federal financial aid guidelines, their own financial circumstances are analyzed rather than those of their parents. UCLA expects that students and their families bear as much of the cost of a student’s education as their circumstances permit.

The information reported on the FAFSA is used to apply for all federally funded programs, funds administered by UCLA, and the Cal Grant program administered by the California...
Student Aid Commission. Loans that are not need based are also available to all students who complete the FAFSA. Students should complete the FAFSA online by March 2. To ensure that UCLA receives FAFSA information, students should enter federal school code 001315 in the appropriate search field.

California Dream Act Application

Students who are not citizens or permanent residents but who are eligible for Assembly Bill 540 nonresident fee waivers may be eligible to qualify for scholarships, UCLA grant aid, and additional state aid if they complete a California Dream Act application. The priority filing deadline for the Dream application is March 2.

Prospective Student Scholarships

In addition to using the FAFSA and Dream Act application to apply for aid, prospective students who apply to UCLA with the UC Application for Admission and Scholarships may use the admission application to apply for undergraduate scholarships. Once admitted, students may fill out the Financial Aid and Scholarships undergraduate scholarship application to broaden their scholarship opportunities.

Continuing Student Scholarships

Continuing students can access and submit the annual Financial Aid and Scholarships undergraduate scholarship application. Students are able to submit the application year round, although early submission is advisable. Resources to help with a thorough search for outside scholarships are available from the Center for Scholarships and Scholar Enrichment.

Types of Financial Aid

The four basic types of aid are scholarships, grants, loans, and work-study employment. The Financial Aid and Scholarships office usually offers a combination of different award types to most applicants.

Aid can be merit based—awarded on the basis of standards such as academic achievement; or need based—awarded on the basis of financial need as determined by the financial aid application. Scholarships managed by the Financial Aid and Scholarships office are based on merit and need. Grants, loans, and work study are generally need based.

Scholarships

The undergraduate scholarship program at UCLA rewards academic excellence and assists with the expenses of an undergraduate education. Scholarship awards range from $100 to $10,000 per year, and require the student to submit a new scholarship application on an annual basis. Financial need is not required for most scholarships at UCLA.

Entering students apply for scholarships on the UC Application for Admission and Scholarships. Once admitted to UCLA, new students have the opportunity to add additional information to their scholarship profile, to allow various departments across campus to consider them for other scholarships that may open throughout the academic year. Continuing students are encouraged to submit the scholarship application as early as May 1 each year. However, applications are accepted year-round.

In addition to applying for UCLA scholarships, students are encouraged to apply for outside scholarship funding through search engines.

Regents Scholarships

One of the highest honors conferred on an undergraduate student is the Regents Scholarship, which is awarded for four years to students entering from high school and for two years to entering juniors. A UCLA faculty committee selects Regents Scholars on the basis of exceptional academic achievement and promise. Scholars receive a yearly honorarium if they have no financial need. Scholars who establish financial need by filing the FAFSA or California Dream Act application receive a combination of grants and scholarships to cover the amount of their need. Regents Scholars also receive special privileges.

Alumni Scholarships

Since 1936, UCLA Alumni have supported Bruins through merit-based scholarships. The Alumni Scholarships Program is open to all eligible students.

Alumni scholarships are awarded through an application screened by alumni volunteers; final selection is made by Financial Aid and Scholarships. By completing one application, students are considered for several scholarships offered through the alumni program. Students need not be related to UCLA alumni to apply. Alumni scholars’ benefits include getting involved in campus events and organizations, building leadership skills, access to leadership development programs and academic enrichment services, and networking with UCLA alumni.

Prospective first-year and transfer students apply through the UCLA prospective undergraduate scholarship application. Applications open in early January each year and close a few weeks before admission decisions are released. Initial award offers are distributed within one to two weeks of admission decisions. Applicants who do not receive an offer...
before the Statement of Intent to Register deadline may still receive one during the summer.

**Merit-Based Scholarships for Prospective Students**
Financial awards for prospective first-year students range from $6,000 to $20,000 over four years; for prospective transfer students, $6,000 over two years. Applicants must attend UCLA beginning the fall quarter immediately after the application cycle. To maintain eligibility, students submit a compliance agreement, complete 30 hours of renewal service, and attend an alumni event.

**Need-Based Scholarships for Alumni Scholars**
Awarded alumni scholars may receive up to $5,000 each year in need-based aid, in addition to their merit award, by submitting information on the Free Application for Federal Student Aid (FAFSA) or California Dream Act application, and receiving a need-based financial aid package.

Incoming scholars receive this aid automatically, based on their FAFSA or Dream Act application. Continuing scholars apply for a Wasserman alumni grant using the continuing student undergraduate scholarship application. Continuing scholars must also meet several enrollment and grade criteria.

**Merit-Based Scholarships for Seniors**
The True Bruin Distinguished Senior Award (TBDSA) is awarded to deserving students who exemplify the True Bruin values of integrity, excellence, accountability, respect, and service. Recipients receive a one-time scholarship of up to $5,000. The scholarship is open to any UCLA senior—not just current alumni scholars—who meets eligibility requirements. Seniors apply for the TBDSA using the fall undergraduate scholarship application.

For more information, see Alumni Association scholarships.

**ROTC Scholarships**
ROTC scholarships are awarded on a competitive basis to U.S. citizens regardless of parents’ income. Scholarships supply tuition, a book allowance, fees, and a tax-free monetary allowance during the academic year. Scholarship applications and information are available online for the Air Force/Space Force, Army, and Navy/Marine Corps. Completed four-year scholarship applications should be submitted by December 31 (Air Force/Space Force and Navy/Marine Corps) or March 1 (Army) of the year preceding college matriculation. Two- (Army and Navy/Marine Corps) and three-year scholarship applications are also available, and are considered when received.

**Grants**
Grants are need-based awards that do not need to be repaid as long as the student maintains eligibility. Depending on funding availability and awarding policy, a financial aid package may include some of the grants listed here.

**Federal Pell Grants**
Federal Pell Grants are based on exceptional need. They are awarded to undergraduate students who are U.S. citizens or eligible noncitizens and who have not earned a bachelor’s degree. Students who file the FAFSA are automatically considered for a Pell Grant. Eligibility is determined by the federal government. Award amounts depend on a student’s Estimated Family Contribution (EFC) and whether enrollment is full time or below. Awards are reduced for students enrolled less than full time.

**Cal Grants A and B**
California residents who attend at least half-time are eligible to apply for a California Student Aid Commission Cal Grant award. The FAFSA or California Dream Act Application and GPA Verification Form are the official applications for these programs. Cal Grant A awards assist low- and middle-income students with tuition and fee costs. Eligibility is based on need and grade-point average. Cal Grant B awards are intended to assist low-income and disadvantaged students with living expenses, books, supplies, and transportation costs. First-year awards may also cover registration fee costs. Renewal award recipients receive registration fee assistance. New awards are limited to students who have completed no more than one full-time semester or two full-time quarters or 16 semester units of part-time study or the equivalent. Students awarded Cal Grant B receive only the stipend portion in their first year. Amounts are subject to change based on the California budget process. If tuition and school services fees increase, CAL Grant fee-paying award will increase correspondingly. Awards are reduced for students enrolled less than full time.

**University Grants**
University grants offer financial assistance from state funds to eligible applicants who meet the FAFSA or Dream Act application priority deadline. Awards range from $100 to over $25,000 and are based on student need. All undergraduate students who are U.S. citizens, eligible noncitizens, or noncitizens eligible for AB 540 waivers and who apply on time are considered. University grant eligibility is subject to availability of funding. Grants may be exhausted before the end of the academic year. Awards are reduced for students enrolled less than full time.

**University Grants to Purchase UCSHIP**
These grants are based on need, and awarded to on-time FAFSA and California Dream Act applicants to cover the cost of the University of California Student Health Insurance Plan
Students who waive UCSHIP are not eligible for these grants.

**Federal Supplemental Educational Opportunity Grants**

Federal Supplemental Educational Opportunity Grants (FSEOG) are awarded to undergraduate students with financial need. Awards range from $100 to $4,000. Recipients must be U.S. citizens or eligible noncitizens. Preference is given to Pell Grant and Cal Grant recipients. Only on-time, grant-eligible FAFSA applicants are considered.

**Loans**

Loans allow students to postpone paying some of the costs of their education until they have completed school. A financial aid offer includes a long-term, low-interest loan. UCLA makes every effort to assist students during the repayment of their obligation; but UCLA services, including registration and the release of official transcripts, are withheld if the loan becomes delinquent. Seriously delinquent accounts are referred to a professional collection agency for action.

All first-time borrowers must complete a debt management session at student loans before funds are released. Parent and graduate PLUS borrowers whose loans are approved on appeal or with an endorser are also required to complete a mandatory counseling session at federal student aid in addition to the debt management session.

All loan recipients must complete an exit interview with the Loan Services Office, A227 Murphy Hall, before leaving UCLA for any reason. This interview helps students understand their loan agreement and their rights and responsibilities. If students fail to participate in an exit interview, UCLA places a hold on their academic records and registration materials. Exit information is mailed to students by the Loan Services Office after receipt of notification of separation from UCLA.

**William D. Ford Federal Direct Loan Program**

**Direct Loans**

Direct loans are low-interest subsidized and unsubsidized loans financed by the U.S. Department of Education.

Subsidized direct loans are awarded to undergraduate students who have demonstrated financial need. Interest rates are fixed, and adjusted annually by the U.S. Department of Education; contact Financial Aid and Scholarships for additional information. Interest accrues immediately after students graduate or drop below half-time enrollment. Repayment begins six months after students leave school or drop below half-time enrollment.

Unsubsidized direct loans are available to undergraduate, graduate, and professional students who are U.S. citizens or eligible noncitizens regardless of income. Interest accrues from the date of disbursement, but students can avoid the extra costs of accrual by making regular interest payments while in school.

**Direct PLUS Loans**

Direct PLUS loans are designed to help graduate students, and parents of undergraduate students, meet the total cost of education. Graduate students and parents may be eligible to borrow up to the cost of education for the academic year, less any other financial aid received. This loan is available only to borrowers who do not have adverse credit histories. The interest rate is fixed, and adjusted annually by the U.S. Department of Education. Contact Financial Aid and Scholarships for information on current interest rates. Borrowers may want to consult a tax adviser to see if the interest is tax deductible.

**Private Loans**

Private loans are available to students who have received the maximum award amounts under the Direct Loan Program and require additional funding. These loans are sponsored by banks and private lending institutions. Interest rates and repayment schedules vary. These loans must be certified by the Financial Aid and Scholarships office before funds can be disbursed. A list of private lenders that UCLA borrowers have used in the past is available at Financial Aid publications.

**Short-Term Loans**

Students need not be receiving financial aid to apply for a short-term loan. They may borrow up to $200 for immediate emergency needs; the amount is repayable on the 20th of the month following the month in which the loan was made. To qualify, applicants must be registered UCLA students with satisfactory loan repayment records. Applications are available from the Loan Services Office, 106 Strathmore Building.

**Work-Study Program**

The Federal Work-Study Program (FWS) is intended to stimulate and promote part-time student employment, particularly for students from low-income families who are in need of earnings to pursue their studies.

Under FWS, the federal government pays a portion of the student’s wage and the employer pays the balance. Through this program, students may work up to 20 hours per week for UCLA, government agencies, or public and private nonprofit agencies. Students employed through FWS supply essential services to UCLA and community, and have the opportunity to hold jobs that may relate to their
educational objectives or enable them to gain valuable work experience.

Majors and Degrees
Students may choose from 141 majors in a wide variety of disciplines offered through the undergraduate degree programs of the College of Letters and Science; Henry Samueli School of Engineering and Applied Science; Herb Alpert School of Music; Jonathan and Karin Fielding School of Public Health; Meyer and Renee Luskin School of Public Affairs; School of the Arts and Architecture; School of Education and Information Studies; School of Nursing; and School of Theater, Film, and Television. For a complete list of major programs and degrees, see Majors and Degrees.

Planning a Major
New students should obtain academic counseling before enrolling in classes at UCLA. Counselors can help new students formulate degree objectives based on interests, abilities, and career goals. As students begin to decide on a major, counselors can help them start fulfilling College or school requirements as well as the department requirements necessary for completion of the degree program.

Declaring a Major
Regulations and procedures for declaring a major vary for the College and each school. Students in the College of Letters and Science do not need to declare a major in their freshman year, and can attend with an undeclared major until the end of their sophomore year. Certain schools require students to choose a major when applying for admission, or require early declaration. Check specific policies for declaration with the school or department adviser.

All students must declare a major by the beginning of their junior year (90 quarter units). To declare a major, obtain a Petition to Declare a Major at the College or school office. There is no fee for the petition.

Changing Majors
Changing majors requires the approval of the department of the new major. Changing majors involving a change in College or school requires the approval of the College or school. To change majors, obtain a Program Change Petition online or at the department office.

Capstone Majors and Programs
Capstones are designed to be the culmination of a UCLA undergraduate experience. Capstones range from yearlong sequences of courses or tutorials to a single seminar, and from honors theses to comprehensive seminar projects or internships. They may be based in tutorials, laboratories, advanced courses, or seminars, and may include either individual or team-based projects. Requirements vary among the college and schools. Capstone majors and programs are identified throughout Curricula and Courses. See capstone initiatives for more information.

Capstone Options
Four types of capstone options represent different expectations for student engagement and independence. Some students might complete capstones of more than one type. For example, having completed an advanced seminar, a student might decide to engage in independent study or an honors project.

Honors Thesis or Project
In a multi-term program, students conduct independent research, laboratory, writing, or other work guided or mentored by faculty. The program culminates in a formal thesis or project that can be granted department honors.

Individual Major
Highly motivated students who find that no single major accommodates their specific interest in a given subject may propose their own major. Proposals are designed with faculty guidance and sponsorship, and thoroughly examined for cogency, completeness, and academic merit.

Individual Project
Students may propose an individual project or paper as the culmination of an upper-division contract course they create with their instructors.

Senior Seminar or Advanced Project
Students may enroll in an advanced senior seminar or project course that requires a comprehensive term paper, performance, or product design.

Learning Outcomes
Learning outcomes describe what students should know, be able to do, and value by the end of their undergraduate educational program. There are four types of outcomes: attitude/value, behavior, knowledge, and skill. They define degree-program goals through focus on student experience and achievement, and allow faculty to evaluate whether students have mastered those goals. Each degree program establishes its own learning outcomes, develops methods for assessment, and uses the results to enhance and improve student learning. Outcomes also help inform prospective and current students about a program’s
purpose and value. See learning outcomes for more information.

Degree Requirements
As soon as they are accepted for admission to UCLA, new students should learn the requirements necessary to receive a bachelor's degree and begin planning an appropriate program of study. All undergraduate students must satisfy UC requirements, College or school requirements, and department requirements.

University Requirements
The University of California has established two requirements that all undergraduate students must satisfy in order to graduate: Entry-Level Writing or English as a Second Language (ESL), and American History and Institutions. It is each student's responsibility to see that these requirements are fulfilled.

Entry-Level Writing
Because proficiency in English composition is so important to successful performance in many courses, Entry-Level Writing is the only requirement for graduation that students must satisfy before entering UCLA or during their first year in residence. They may meet this requirement by one of the following methods:

- Score 30 or better on the ACT, English Language Arts, or 63 or better on the ACT, English Plus Reading
- Score 680 or better on the SAT, Evidenced-Based Reading and Writing
- Score 3, 4, or 5 on the College Board Advanced Placement Examination in English Language and Composition, English Literature and Composition, Research, or Seminar
- Score 5, 6, or 7 on one of the International Baccalaureate Higher Level English A Examinations, or score 6 or 7 on one of the International Baccalaureate Standard Level English A Examinations
- Before enrolling at UCLA, present transfer credit for an acceptable college-level course in English composition (passed with a grade of C or better) at another institution
- Receive a Writing I placement on the University of California Analytical Writing Placement Examination (all freshmen from California high schools should have taken the examination during the month of May before they enrolled; others take an examination at UCLA early in their first term)

If students do not meet the requirement in one of the ways described above, Academic Senate regulations require them to enroll in a course determined by performance on the Analytical Writing Placement Examination as early as possible during their first year in residence. Each course must be taken for a letter grade and passed with a grade of C or better. Students receiving a final grade of C– or worse must repeat the course during their next term in residence. The Entry-Level Writing requirement must be satisfied before enrolling in any course that satisfies the Writing I requirement (English Composition 3, 3D, 3DX, 3E, 3SL). For more information, see Entry-Level Writing.

English as a Second Language
First-year undergraduate students whose first language is not English and who have not otherwise satisfied the Entry-Level Writing requirement must take the Analytical Writing Placement Examination (AWPE) either by the time they enter UCLA or during their first term. Results of the AWPE are reviewed to determine whether the student must take designated English composition courses in order to satisfy the Entry-Level Writing requirement. Neither the Test of English as a Foreign Language (TOEFL) nor any other English proficiency test is accepted in lieu of the AWPE. Students may take the AWPE only; unauthorized retakes result in an invalid score. Students must begin taking courses during their first term in residence at UCLA, and must complete each course in sequence with a grade of C or better. All units are applied toward graduation, but cannot be applied toward general education requirements.

Transfer students whose native language is not English and who have completed the Writing I and Writing II equivalent courses at their transfer institution may still be held for the UCLA English as a Second Language (ESL) requirement at the discretion of UCLA Undergraduate Admission. This includes, but is not limited to, all students who received a grade below B in either Writing I or Writing II equivalent courses at their community college. Transfer students held for the ESL requirement must take the English as a Second Language Placement Examination (ESLPE) either before or during their first term at UCLA to determine whether they must complete one or more English composition courses. Neither the Test of English as a Foreign Language (TOEFL) nor any other English proficiency test is accepted in lieu of the ESLPE. Students may take the ESLPE once only; unauthorized retakes result in an invalid score. Students must begin taking courses during their first term in residence at UCLA, and must complete each course in sequence with a grade of C or better. All units are applied toward graduation, but cannot be applied toward general education requirements.
American History and Institutions

The American History and Institutions requirement is based on the principle that a U.S. citizen or resident attending an American university should understand the history and public institutions of the U.S. under the federal and state constitutions. Candidates for a bachelor’s degree must satisfy the American History and Institutions requirement by one of the following methods:

- Complete a year-long course in American history or American government, or a one-year combination of both, in high school with an average grade of B or better
- Complete any one of the following UCLA courses with a grade of C or better, or a grade of Passed:
  - Asian American Studies M171D
  - Chicana/o and Central American Studies M159A, M159B, CM182, M183
  - Economics 183
  - Gender Studies M147B, M147D
  - Study of Religion M142C
- Equivalent courses completed in UCLA Extension or at another college institution, and accepted by the Board of Admissions, may be used to fulfill the requirement
- Present a satisfactory result of the requirement, by examination, as administered at another college or university within the state
- Score 500 or better on the SAT Subject Test in U.S. History
- Score 3, 4, or 5 on the College Board Advanced Placement Test in American History

Candidates for an instructional credential, but not for a degree, must take one of the following courses: History 143A, 143B, Political Science 145B, or 145C.

Students attending UCLA on an F-1 or J-1 visa may petition for exemption from this requirement by showing proof of temporary residence in the U.S.

College or School Requirements

The College and each school with undergraduate programs establish their own degree requirements. These generally include a unit requirement that defines the total number of units to be completed; scholarship requirement that defines a minimum grade-point average; residence requirement that defines the amount of study that must be undertaken in residence at the UCLA campus; and course requirements that may include general education courses, reading and composition courses, foreign language courses, and core courses for the field of study. See College and Schools for details on requirements set by the College and each of the schools.

Department Requirements

Each department or interdepartmental program sets its own degree requirements in addition to those established by the College or school. Department requirements generally include preparation for the major, which are lower-division courses designed to prepare students for advanced study; and the major, which are upper-division course requirements. Requirements for each department are listed in Curricula and Courses.

Degree Policies

Students are responsible for degree policies and regulations as described under Degrees in Policies and Regulations.

Undergraduate Research

Undergraduate Research Centers

The Undergraduate Research Centers (URC) assist students in the humanities, arts, social sciences, and behavioral sciences (URC Humanities, Arts, and Social Sciences, A334 Murphy Hall) and in science, engineering, and mathematics (URC Sciences, 2121 Life Sciences) by supporting scholarly, critical, and creative research. The centers offer mentoring and tutorials, manage the Student Research Program (SRP), and administer summer research programs, academic year research programs, research stipends, and scholarships. They also sponsor two student-run publications—the Undergraduate Science Journal and the Aleph humanities and social sciences journal; organize campuswide conferences and events; and coordinate the Student Research Forum that promotes a broader and deeper understanding of university research, and helps entry-level student researchers define their place in the larger research community. See undergraduate research for more information.

Student Research Program

Administered by each Undergraduate Research Center, the Student Research Program (SRP) offers undergraduates, especially lower division and first-year transfer students, opportunities to become actively involved in the UCLA research community. Working with faculty members on
research projects, SRP students gain valuable research training and experience, as well as preparation for advanced undergraduate work and graduate school. Students enroll in course 99 in any department and receive 1 unit of course credit for each 30 hours of research completed during the term. Science, engineering, and mathematics students should see sciences SRP. Humanities, arts, social sciences (HASS), and behavioral sciences students should see HASS SRP.

**Undergraduate Research Fellows Program**

The Undergraduate Research Fellows Program (URFP) is available on a competitive basis and by application for undergraduate students seeking entry-level research experience. Funded students typically participate in two terms of research (winter and spring quarters) through SRP. Science, engineering, and mathematics students should see sciences URFP. Humanities, arts, social sciences (HASS), and behavioral sciences students should see HASS URFP.

**Undergraduate Research Scholars Program**

The Undergraduate Research Scholars Program (URSP) offers scholarships from foundations, industry, and individual donors to continuing students (junior-level standing and higher). Applicants must have a strong commitment to research and must complete an honors thesis or a comprehensive independent studies project during the senior year. Applications are accepted during spring quarter for the following academic year. Science, engineering, and mathematics students should see sciences URSP. Humanities, arts, social sciences (HASS), and behavioral sciences students should see HASS URSP.

**Academic Research Courses**

All academic departments offer undergraduate research courses that allow students to obtain academic credit for their research experiences. Students enrolled in the courses are often upper-division students with Student Research Program experience. Department requirements for credit vary, but all departments require a research proposal to enroll in upper-division tutorial courses and a research report to receive credit when the research project is completed. Senior students working toward honors or highest honors in many majors must complete a two-term (or more) research project that culminates in an honors thesis. Arrangements must be made with a faculty mentor before students can register for the course. See the undergraduate adviser in the department of interest for more information.

**Internships and Service Programs**

Rewarding opportunities in the form of internships, community service work, industry and business positions, local, national, and international programs, and community-based teaching furnish students with insights into a range of professional fields and the chance to apply academic theories firsthand.

**Career Center**

**Internship and International Opportunities**

The UCLA Career Center, located in the Strathmore Building, offers support researching and finding internships, fellowships, and other experiential learning opportunities in the U.S. and abroad. Career educators are available to meet with students in person or virtually for one-on-one support regarding a variety of topics. These include career and major exploration, professional document review, interview preparation, as well as graduate and professional school consideration and application assistance. Appointments can be made on Handshake, the Career Center’s online job and internship platform. In addition, UCLA career peers advise students on resume and cover letter development and search techniques to identify relevant employers and programs through 15 minute drop-in sessions, available in person or virtually. Many helpful resources are featured online. Opportunities for current students and recent graduates include teaching or volunteering abroad, research or fieldwork, and internships in almost every occupation or industry.

**UCDC Summer in Washington Internship Program**

The UCDC Summer in Washington Internship Program offers housing to students from all majors who have at least sophomore standing and would like to spend the summer in Washington, DC gaining work experience through an internship. Opportunities are available with elected officials, government agencies, public interest groups, international organizations, media, and a wide range of public and private sector organizations. Through registering in the M195DC course, the program offers advice on searching and applying for internships. There is also the opportunity to apply for a scholarship with the Career Center to help cover some of the costs for the program.
Quarter in Washington, DC

The Quarter in Washington Program (UCDC) program offers an exciting opportunity to combine UC courses with field experience.

Students live at the UC Washington Center for up to 11 weeks, dividing their time between coursework and a part-time internship placement. Students choose from a variety of UCDC seminars with topics relevant to Washington, such as Congress or the Supreme Court. At least one optional additional course is usually offered each quarter. All courses take advantage of the unique resources of Washington for study and research.

UC Washington Center administrators help students find an internship. Placements have included C-SPAN, the Human Rights Campaign, the Department of Justice, Smithsonian museums, the Wilson Center, and various members of Congress.

Reserve Officers’ Training Corps

The University of California, in accordance with the National Defense Act of 1920 and with the concurrence of the Regents, offers courses and programs in military training. This voluntary training allows students to qualify for an officer’s commission in the Air Force, Army, Marine Corps, Navy, or Space Force while completing their college education. ROTC courses are offered by three departments within the College of Letters and Science: Aerospace Studies (Air Force and Space Force), Military Science (Army), and Naval Science (Navy and Marine Corps). Equipment, uniforms, and textbooks are supplied. The programs supply a monthly stipend to eligible students while on contract; and additional financial benefits, including tuition and fee scholarships, to qualified students. Individual programs are described in Curricula and Courses.

Teaching Opportunities

Exciting teaching programs prepare undergraduate students for careers in teaching or education and allow them to serve in classrooms in the Los Angeles area. Many teaching opportunities are offered in conjunction with the School of Education and Information Studies (SE&IS), which helps coordinate programs leading to various instructional credentials or to graduate study.

Education and Social Transformation Major

In the Education and Social Transformation major, students analyze current issues in education through a social justice lens and emerge as effective advocates for positive change. See the program description in Curricula and Courses.

Education Studies Minor

The Education Studies minor offers a sequence of courses designed to introduce students to key issues, research, and policies in education. Students participate in a range of seminar and practicum courses to fulfill program requirements. The program office is in 1002 Moore Hall. See the program description in Curricula and Courses.

General Chemistry Major

The General Chemistry major is for students who want to acquire considerable chemical background in preparation for careers in secondary school chemistry teaching. The major may be appropriate for some students who plan to enter other chemistry-related careers that involve teaching chemistry to nonchemists. See the program description in Curricula and Courses.

Mathematics Education Coursework

The Mathematics Department offers a portfolio of six courses that help students develop a professional understanding of K-12 mathematics content, investigate current issues and research in the teaching of mathematics, and gain clinical practice hours required for a California Single Subject Teaching Credential in Mathematics.

Math for LA

Math For LA is an effort of the Mathematics Department’s Curtis Center to improve the mathematics experiences of Los Angeles K-12 students. Its offerings include two credential pathways, a major, a minor, and a sequence of mathematics education courses (73XP, 74XP, 75XP, 105A, 105B, and 105C).

Credential Pathways

Two pathways are offered jointly with the School of Education and Information Studies. Each leads to a California Single Subject Teaching Credential in Mathematics. In the Integrated Pathway, students complete courses in education and mathematics during the junior and senior years to earn a California teaching credential upon graduation. In the Joint Math Education Pathway, students complete courses in education and mathematics during the senior year. They complete additional education courses the following summer to earn a California teaching credential. Over the following academic year, they complete graduate courses to earn a master’s degree in Education.
For more information, contact Julian Rojas, or visit The Curtis Center in 5602 Mathematical Sciences Building between 8 a.m. and 4 p.m. Mondays through Wednesdays.

Mathematics for Teaching Major
The Mathematics for Teaching major is primarily designed for students preparing for careers in instruction, curriculum development, and assessment of high school mathematics. It is similar to the Mathematics major but has courses devoted to training in high school mathematics instruction. The major offers exceptional training in mathematics as well as in the pedagogy and content needed to teach high school mathematics, as recommended by the Conference Board of Mathematical Sciences. Students who complete the major also satisfy the California Subject Matter Competency requirement for a Single Subject Teaching Credential in Mathematics.

Mathematics for Teaching Minor
The Mathematics for Teaching minor is designed for students who are interested in K-12 mathematics education. The minor provides recognition for completion of mathematics education coursework that is essential for working in secondary school instruction, curriculum development, or assessment.

Science Education Minor
The Science Education minor offers preparation for careers where teaching is an important component, including middle and high school, community college, university, or other science-related outreach careers. Students who wish to become middle or high school science teachers or who plan to teach as graduate students in their disciplines are the primary focus. The minor supplies the broad general science background included in California state subject matter credential examinations, education coursework, field experiences in the development, management, and teaching of science laboratory instruction in grades 7 through 12, and UCLA-based teaching practicums in lower-division science laboratory. See the program description in Curricula and Courses.

Science Teacher Education Program
The Science Teacher Education Program (STEP), cosponsored by the College of Letters and Science and the School of Education and Information Studies, allows science majors to observe and participate in classrooms in schools in the Los Angeles area and to begin teacher education courses in their senior year. Students earn a preliminary teaching credential the summer after the bachelor’s degree is received and a master’s degree in education the following academic year. For details, contact Arlene Russell.

Teacher Education Program
The Teacher Education Program allows students to obtain both a Master of Education degree and a preliminary multiple or single subject credential in a full-time, two-year program that supplies clinical classroom experience and a full-year urban teaching residency.

UCLA Cal Teach
The UCLA Cal Teach program encourages and supports undergraduate students who are interested in exploring K-12 mathematics and science teaching as a potential career. Courses include 20 hours of observation, participation, and assisting in K-12 schools, and seminars to support those field experiences.

Visual and Performing Arts Education Minor
The Visual and Performing Arts Education (VAPAE) minor in the School of the Arts and Architecture is an interdisciplinary and interdepartmental series of courses designed to introduce students to key issues and methodologies in the field of arts education for multiple publics and to a broad range of careers in the arts, including K-12 teaching, museum education, community arts education, creative arts therapies, and arts advocacy.

The arts education teaching sequence, an important component of the minor, consists of three courses in which selected undergraduate students explore core issues in arts education, creativity, and social justice. Students are assigned to K-12 classrooms in the Los Angeles area where they first observe and then implement an eight-week sequential arts-based lesson plan under the supervision of the guiding teacher.

Students are able to focus their studies on the following areas: strategies and methods in teaching in the arts, arts in the community, teaching the arts in non-traditional settings and with special populations, social-emotional learning in the arts, and interdisciplinary arts training. Upon completion of the minor, students are eligible to be hired to teach in VAPAE Afterschool and Arts Enrichment Programs that take place at school and community sites in Los Angeles. The program office is in 2101 Broad Art Center. See the program description in Curricula and Courses.
Center for Community Engagement
The Center for Community Engagement creates opportunities for UCLA faculty, students, and staff to collaborate with community partners to build an equitable and just society through community-engaged research, teaching, and community programs. The center supports faculty, students, and community partners to create successful community-engaged courses and research, credit-bearing internships, and AmeriCorps programs. The center is home to the undergraduate minor in Community Engagement and Social Change, and such signature student scholarship programs as Astin Community Scholars and Changemaker Scholars. The office is in A265 Murphy Hall.

University of California Center Sacramento
The University of California Center Sacramento (UCCS) is operated by UC Davis. UCCS advances the university’s mission of teaching, research, and public service with an integrated program to train future state leaders, to address challenging public-policy issues confronted by the nation and state, and to carry out the university’s mandate to assist state government. UCCS places students in intensive one-term policy-related internships throughout the state Capitol building and in the Sacramento policy community. Participating students take a full term’s worth of credit-bearing courses in addition to their internships. UCCS is open to all majors. For full eligibility criteria and application information, see the UCCS admissions web page.

Lower-Division Seminar Programs

Collegium of University Teaching Fellows
The Collegium of University Teaching Fellows (CUTF) offers outstanding graduate students the opportunity to develop and teach lower-division seminars in their area of expertise. These unique courses cover all areas, from the humanities to the life, physical, and social sciences. Undergraduate students take courses that are at the cutting edge of a discipline and benefit from a small-seminar environment. General education credit is granted for most seminars, which are offered in winter and spring quarters only. Enrollment is limited.

Fiat Lux Seminar Program
The Fiat Lux Seminar Program is a cornerstone of the innovative undergraduate curriculum at UCLA. These seminars provide students and faculty with small-group settings to engage in meaningful discussions on a range of topics. Students receive 1 unit of academic credit (Passed/Not Passed grading), and faculty members from across campus have the opportunity to share with undergraduates their areas of intellectual passion and expertise. True to the University of California’s motto Fiat Lux—Let There be Light, these seminars illuminate the many pathways of discovery. For details about seminar offerings each term, see the Schedule of Classes.

Honors Collegium
Honors Collegium, a series of interdisciplinary honors courses, offers a unique educational experience where students learn how to think critically and creatively and how to communicate effectively. Courses emphasize the breadth of an interdisciplinary approach to learning and focus on small classes and individual attention.

Undergraduate Student Initiated Education
Undergraduate Student Initiated Education (USIE) is an innovative program designed to provide a select group of juniors and seniors with the opportunity to develop and facilitate, under faculty supervision, a lower-division seminar for their peers.

The application and selection period is during spring quarter. During the fall and winter quarters (of the next academic year), selected student facilitators work closely with their faculty mentors in two 1-unit independent study courses (one each quarter) focused on the content-area of their proposed seminar. In addition, student facilitators enroll in two 1-unit pedagogy seminars (one each quarter) in which various facilitation strategies and techniques are discussed in preparation for leading their own spring seminar. Through the independent study courses and pedagogy seminars, student facilitators develop a formal syllabus for their spring seminars for review and approval by the USIE Faculty-Student Advisory Committee and the Faculty Executive Committee (FEC).
Academic Advising and Support

Academic advising and support is available from student, staff, and faculty advisers; and through student services, tutorials, and other special programs.

New Student Academic Programs

UCLA New Student Academic Programs is designed to serve the educational planning, academic advising, matriculation, and adjustment needs of all entering UCLA undergraduates. The goal is to ensure that all new UCLA students and their families begin their journeys at UCLA with a comprehensive, positive introduction to Bruin life. The first step begins during New Student Sessions, where new student advisors work in small groups to provide an introduction to UCLA and its world-renowned academic programs, extensive services, and rich traditions. Individual counseling sessions help students adjust to life at UCLA and fulfill the advising requirements of the College or school. Sessions for family members are also offered.

New Student Sessions are three-day, two-night, residence hall live-in programs for first-year students; and one-day programs for transfer students. There is a fee for participation.

New Student Academic Programs also offers the College Summer Institute (CSI), a seven-week residential program in which new first-year students get a head start on graduation requirements through UCLA summer courses. During the academic year, additional programs offer academic advising and support. For more information, contact the New Student Academic Programs office in 201 Covel Commons or through Message Center.

College and School Advisers

The College and each school at UCLA have a staff of academic counselors and advisers to help students plan their academic program, monitor their progress toward the bachelor’s degree, provide information about degree requirements, and assist with academic problems.

Students in the College are served by one of four counseling units: Academic Advancement Program, College Academic Counseling, Honors Programs, or Student Athletics. Undergraduates in the seven professional schools are served by their respective student services offices. See the Center for Academic Advising in the College’s undergraduate advising units web page for a list of College and school advising office addresses. To contact a departmental adviser, see the individual department in Curricula and Courses; a list of department websites is available online.

Academic Advancement Program

Academic Advancement Program (AAP) is the largest university-based student diversity program in the U.S. Its programs for first-generation, low-income, and historically underrepresented students help ensure their academic success, retention, and graduation; and support their pursuit of academic excellence. AAP aims to increase member entrance to graduate and professional schools; develop academic, political, scientific, economic, and community leadership; and promote UCLA access and academic success for diverse high school and community college students across California.

Students are eligible for AAP if their academic profiles and personal backgrounds may impact their university experience and their retention and graduation from UCLA. Students are also eligible if they are part of any federally funded program that requires counseling, tutoring, or mentoring. For more information, contact AAP New Student Programs, 1230 Campbell Hall.

Center for Community College Partnerships

The Center for Community College Partnerships (CCCP) develops academic partnerships between California community colleges—particularly those with large underrepresented populations—and UCLA, to improve student competitiveness for UC admissions and increase the transfer admission pool diversity. Its Scholars Program offers mentoring and summer programs to help prepare students for transfer to a four-year school.

Graduate Mentoring Programs

Graduate Mentoring programs (GM) offers AAP undergraduate students one-on-one mentoring in preparation for graduate studies and professional school admission. It also offers workshops on graduate school topics. Appointments are with and workshops are led by current graduate and professional school student mentors.

Arts Initiative Program

The program focuses on integration of the arts into different scholarly fields. AAP students engage in interdisciplinary research involving fine, commercial, and performing arts with an emphasis on connections to social justice issues.
Carter-Huggins Community Development and Social Justice Program
The Carter-Huggins Community Development and Social Justice Program (CDSJ) assists AAP students interested in pursuing graduate study in public health, public policy, social welfare, and urban planning. Students conduct applied research projects while interning at community-based social justice and equity organizations.

Educators for Tomorrow
The Educators for Tomorrow (EFT) program assists a new generation of socially conscious educators. AAP students participate in community service programs, internships, and research related to all facets in the field of education.

High Achievement in Math and Science Program
The High Achievement in Math and Science Program (HighAIMS) supports AAP students in their chosen health science professions. It offers career and academic guidance, and includes graduate school preparation, workshops, and information sessions.

McNair Research Scholars Program
The two-year program prepares AAP students for PhD programs. Students conduct an independent research project and participate in a research-intensive summer program.

Peer Learning
AAP Peer Learning offers numerous academic support sessions with peer learning facilitators (PLFs). Mainly upper-division undergraduates, PLFs are academic role models who have successfully completed courses in the mathematics, sciences, humanities, and social sciences disciplines. PLFs facilitate individual and small-group sessions designed to help AAP students recognize their own intellectual authority by encouraging them to engage with course materials actively, critically, and independently.

Research, Assessment, and Evaluation
The Research, Assessment and Evaluation (RAE) unit maintains data on the Academic Advancement Program and AAP students while designing and implementing assessments and evaluations that examine their progress and outcomes. AAP RAE also provides AAP students with the opportunity to engage independently and collaboratively with institutional research projects that can inform real world practices and decision-making within the program from data cleaning, coding, and visualization to analyses and report writing.

Research Rookies Program
The program gives second-year AAP students the opportunity to develop entry-level research projects in humanities and social sciences. Over two academic terms, students gain valuable knowledge and experience regarding research.

Scholarships
Eligible AAP students may receive merit and need-based scholarships through established financial aid programs. AAP also awards scholarships; see scholarships for help with the application process.

Summer Graduate Preparation Program
Over six weeks during summer session, students prepare to apply to graduate or professional school. Students draft their application materials with a graduate student mentor. The program is not unit or credit bearing.

Freshman/Transfer Summer Program
This seven-week residential summer program prepares incoming AAP freshman and transfer students for the academic rigors of UCLA. Students build an academic support network that supplies interaction and broadens life experiences. Students enroll in three UCLA courses that fulfill graduation requirements, and get support in small groups or individual sessions from teaching assistants and peer learning facilitators.

UndocuBruins Research Program
The program prepares undocumented AAP students for graduate school. Students conduct independent research projects related to issues regarding immigration and immigration policy. Special emphasis is given to resources that best serve undocumented students and their communities.

Vice Provost Initiative for Precollege Scholars
The initiative partnership between UCLA and the Los Angeles and Pasadena school districts prepares historically underrepresented students in 11 high schools to become competitively eligible for admission to UCLA and other flagship universities. The Vice Provost Initiative for Precollege Scholars (VIPS) offers peer mentoring, summer programs, Saturday academies, and research opportunities to scholars and their families.

Academic Excellence
Eligible students receive the following honors and awards in recognition of academic achievement:
Dean’s Honors List

The School of the Arts and Architecture; School of Education and Information Studies; Henry Samueli School of Engineering and Applied Science; Herb Alpert School of Music; Jonathan and Karin Fielding School of Public Health; Meyer and Renee Luskin School of Public Affairs; School of Nursing; School of Theater, Film, and Television; and the deans of the five divisions in the College of Letters and Science award Dean’s Honors to deserving students each term. Honors are based on the grade-point average attained within a specified number of units. Contact the College or school for more information.

Latin Honors

The College and schools award Latin honors according to overall grade-point average at graduation. To be eligible students must have completed at least 90 (98 for the School of Nursing) UC units for a letter grade. The levels of honors are summa cum laude, magna cum laude, and cum laude. Specific requirements vary for each level and are detailed in College and Schools. See the Registrar’s honors web page for the most current calculations of Latin honors.

Departmental Honors

In the College of Letters and Science, departmental honors and highest honors are awarded at graduation on the recommendation of a student’s major department, based on successful completion of a departmental honors program. Students should contact their department for its requirements.

Departmental Scholar Program

Departments in the College of Letters and Science and each school—except the Herb Alpert School of Music; School of Nursing; and School of Theater, Film, and Television—may nominate exceptionally promising juniors and seniors as Departmental Scholars to pursue bachelor’s and master’s degree programs simultaneously. Nominations are submitted to the College or school dean for recommendation to the dean of the Division of Graduate Education. Students interested in becoming Departmental Scholars should contact their departments well in advance of application dates for graduate admission; see the deadlines web page.

Honor Societies

Alpha Lambda Delta and Phi Eta Sigma

Alpha Lambda Delta and Phi Eta Sigma are national honor societies that recognize high-achieving first-year students. Membership is based solely on academic achievement and is by invitation only. To be eligible, students must have a 3.5 grade-point average with 12 graded UC units in the first quarter of their first year at UCLA, or a cumulative 3.5 GPA at the end of the first year. For more information, send e-mail to the Office of the Dean of Students.

Golden Key

Golden Key is an international interdisciplinary academic honors organization dedicated to excellence. Students qualify on the basis of objective academic criteria. To be eligible, students must have a UC grade-point average of 3.6 after their first quarter at UCLA; and have sophomore, junior, or senior standing at the time of invitation.

The society recognizes and encourages scholastic achievement and excellence in all undergraduate fields of study. It unites with collegiate faculties, staff, and administrators in developing and maintaining high standards of education, and promotes scholastic achievement and altruistic conduct through voluntary service. Invitations are issued annually. For more information, send e-mail to the Office of the Dean of Students.

Mortar Board

Mortar Board is a national honor society for college seniors that recognizes outstanding and continual scholarship, leadership, and service to the campus community.

To be considered for membership, candidates must have completed 90 units and must have attained at least a B average or be in the highest 35 percent scholastically of the junior class, whichever is higher. Applications are available online early in spring quarter and are due by mid-April. Approximately 35 members are selected each spring by the outgoing chapter. For more information, contact the Student Organizations, Leadership, and Engagement (SOLE) office, 105 Kerckhoff Hall.

Phi Beta Kappa

Phi Beta Kappa is a national academic honors society in the humanities, liberal arts, and sciences, founded at the College of William and Mary in 1776. Membership is conferred for high scholastic standing and is determined by vote of the UCLA Eta Chapter Committee on Members in Course according to scholarship records. Students do not apply for Phi Beta Kappa membership.

At UCLA, only graduating seniors and selected juniors are elected to membership. The annual election is held in late April, with the initiation ceremony in June. At present, the minimum grade-point average considered is 3.85 (for 140 or more UC units); the minimum number of UC units consid-
Elected is 80 (students at the 80-unit level must have at least a 3.90 GPA).

A reasonable distribution of courses in the humanities and sciences is also required, as is a foreign language course at the intermediate level (one level above the UCLA language requirement for graduation) or above. A Passed grade is computed approximately as a B, depending on number of courses taken and graded units. Elected students are notified through MyUCLA.

For more information, see the website, or contact Phi Beta Kappa in the UCLA Center for Scholarships and Scholar Enrichment, 233 Covel Commons.

**Tau Sigma**

**Tau Sigma** is a national honor society that recognizes the high academic achievement of first-year transfer students. To become a member, UCLA students must have a 3.5 grade-point average or better during their first term at UCLA after transferring either from a community college or a four-year institution (summer quarter not typically included). Invitations are issued after each regular academic term.

Tau Sigma honors the large UCLA transfer community for its academic achievement. The society also holds leadership, networking, and social activities. For more information, send e-mail to Tau Sigma or contact the Office of the Dean of Students.
Graduate Study

Graduate students at UCLA benefit from—and contribute to—the resources of one of the country’s outstanding research universities. A distinguished faculty committed to research and teaching; an extensive library system ranked among the best in the nation; and excellent research centers, institutes, and laboratories in virtually every major discipline all offer extraordinary opportunities for graduate endeavor.

Graduate training at UCLA takes place in classrooms, laboratories, and libraries; in specialized seminars; through independent research; and in teaching experiences. Graduate education is enriched by several hundred postdoctoral and visiting scholars from other universities who engage in research and, in some instances, teaching at UCLA every year. This unique research environment promotes the quality of original work and study that is the hallmark of graduate education.

The degree of Master of Arts or Master of Science, or one of several professional degrees such as Master of Business Administration, is intended to develop mastery of a field and prepare students for the practice of a profession. The doctorate degree (PhD, EdD, and so forth) is designed to prepare students for creative activity and original research, often in association with college or university teaching.

Shared Governance

Graduate degree programs, courses, and requirements are governed and administered by the Graduate Council, Division of Graduate Education, College and school faculty executive committees, and department advisers.

Graduate Council

The Graduate Council is a standing committee of the UCLA Academic Senate. The council is responsible for the establishment of UCLA policy and standards for master, doctorate, and graduate professional degree programs (other than those in law, medicine, and dentistry) and postdoctoral scholars; the approval, review, and monitoring of graduate degree programs; and recommendations about fellowships and assistantships. It also recommends to the systemwide Coordinating Committee on Graduate Affairs programs that lead to new degrees; and delegates authority to Division of Graduate Education, and College and school faculty executive committees.

Division of Graduate Education

The UCLA Division of Graduate Education administers policy established by the Academic Senate and its Graduate Council. It oversees graduate recruitment and admissions (including recruitment of a diverse student body), fellowships, teaching assistantships, graduate student researcher appointments, and other graduate student support; and maintenance of high quality standards in all graduate programs.

Graduate Adviser

At matriculation, a graduate student usually selects or is assigned a graduate adviser who assists in program planning and completion of degree requirements. Sometimes this role is temporarily assumed by a faculty adviser assigned to the program as a whole. When the student’s master or doctoral committee is established, the chair of the committee assumes the adviser role.

Graduate Admission

Diversity, Inclusion, and Admissions
1237 Murphy Hall
310-206-3411

Meeting the minimum requirements does not ensure graduate admission, which is limited by the number of places and the amount of student support available in UCLA graduate programs. Applicants are evaluated on scholastic qualifications and formal preparation for the graduate field of study. Departments may have other requirements for admission, which are listed by department and by degree and can be accessed from the Graduate Education website.

Application for Admission

Prospective students apply online. A nonrefundable application fee is required when the application is submitted.

When to Apply

Most departments and schools have deadlines in November and early December for the following fall quarter. Consult the admissions section of the Graduate Education website for specific deadlines for each major. A few departments accept applications for winter and spring quarters.

At the discretion of the department, applications may be considered if submitted after a stated program deadline, provided the enrollment limits have not been exceeded.
Entrance Requirements
U.S. applicants to graduate standing must hold a bachelor’s degree from a regionally accredited institution comparable in standard and content to that awarded at the University of California. Degrees granted on the basis, for example, of nonacademic prior learning, test scores, and other than organized supervised coursework in academic subjects are not considered comparable. A scholastic average of 3.0 (B) on a 4.0 scale, or better (or its equivalent if the letter grade system is not used), is required in undergraduate coursework and in any postbaccalaureate study.
See also requirements for international applicants in this chapter.

Supporting Materials
Supporting materials to be submitted, including official transcripts of record and nonrefundable application fee, are specified on the graduate admissions website. Submitted materials become the property of UCLA and are not returnable.

Graduate Record Examination
Applicants for admission to a department or school that requires Graduate Record Examination (GRE) scores should arrange to take the examination no later than December, so scores arrive on time. GRE scores should be sent directly to the prospective department and not to Division of Graduate Education.

GRE registration and information about testing formats are available from Educational Testing Service (ETS). Information on GRE fee waivers is also available on the ETS site.

Letters of Recommendation
Most graduate professional schools, departments, and interdepartmental programs at UCLA require applicants to submit three letters of recommendation. Letters typically augment, validate, or explain information provided in the application; and should be written by persons qualified to analyze student’s abilities and academic promise.

Admission to Bioscience Programs
Applicants to PhD programs in fields related to life and biomedical sciences apply for admission to one of 11 individual research areas. Graduate Programs in Bioscience is a consortium of PhD programs organized into specialized research training groups, called home areas, that serve as the admissions and training units associated with the degree-granting programs. Through this structure, students can specialize in their chosen area while maintaining the flexibility to move between home areas to best pursue their research interests.

Degree-Granting Programs and Home Areas
Consortium PhD programs offer the research home areas listed.

Bioinformatics
  Bioinformatics
  Medical Informatics

Human Genetics
  Genetics and Genomics

Molecular Biology
  Biochemistry, Biophysics, and Structural Biology
  Cell and Developmental Biology
  Gene Regulation, Epigenomics, and Transcriptomics
  Immunity, Microbes, and Molecular Pathogenesis

Molecular, Cellular, and Integrative Physiology

Molecular and Medical Pharmacology
  Molecular Pharmacology

Neuroscience

Physics and Biology in Medicine

Additional opportunities for doctoral study include Biochemistry, and Molecular and Structural Biology in the College of Letters and Science; Oral Biology in the School of Dentistry; and Molecular Toxicology in the Fielding School of Public Health.

International Applicants
International applicants who have completed their postsecondary education outside the U.S. are expected to hold a degree, with above average scholarship, from a university or university-level institution. If their examinations have been graded Excellent, Very Good, Good, and Pass, applicants must have at least a Very Good general rating to qualify for admission.
Applicants who hold a three-year Bologna degree may be considered for admission on the recommendation of the department, program, or professional school. Applicants who hold a three-year ordinary or pass degree—or who hold a professional diploma in accounting, business, librarianship, social work, physical education, health education, and so forth—or a four-year degree, diploma, or higher certificate from a technical, vocational, or postsecondary specialized school should not apply for graduate admission. Persons with memberships in professional associations such as an Institute of Chartered Accountants, Institute of Chartered Secretaries and Administrators, and so forth, do not qualify for graduate admission unless they also hold recognized university-level degrees or titles.

Applicants should submit transcripts of record, in the original language and with an English translation certified by the institution, for all college and university work. Applicants who are officially offered admission must submit official, final academic records before the term of admission begins. The original of an academic record that cannot be replaced must not be sent; a properly certified copy should be sent instead. Specific information for applicants from different educational systems is available from required academic records.

**English Language Proficiency**

Most international applicants to UCLA graduate school are required to submit scores from either the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS) examination. International students and U.S. citizens who hold a bachelor’s or higher degree from a university located in the U.S. or in another country (e.g., Australia, Barbados, Canada, Ireland, Jamaica, New Zealand, United Kingdom) in which English is both the primary spoken language of daily life and the medium of instruction, or who have completed at least two years of full-time study at such an institution, are exempt from this requirement.

Applicants who are required to submit TOEFL or IELTS scores (i.e., do not belong to the exempted categories listed) may also be required to take the UCLA English as a Second Language Placement Examination (ESLPE) to determine potential coursework in academic writing. Incoming students who score at least 100 on the TOEFL iBT (Internet-based test), or at least a 7.5 overall band score on the IELTS examination, are exempt from the ESLPE requirement.

Students who are required to take the ESLPE must do so before or during their first term at UCLA. Students may take the ESLPE once only. Unauthorized retakes of the examination result in an invalid examination score. Depending on ESLPE results, students may be required to complete one or more courses in the English as a Second Language (ESL) credit-bearing series, beginning in their first term in residence at UCLA. The courses must be passed with a grade of C or better if taken for a letter grade, or the equivalent of B or better if taken on an S/U basis. Taking required ESL courses may prolong students’ time to degree. If students do not achieve a minimum score on the ESLPE, their admission is deferred until they have acquired the necessary proficiency in English.

**Teaching Assistantships**

Graduate students whose first language is not English must pass a campus-administered Test of Oral Proficiency (TOP) to be eligible for a UCLA teaching assistantship. Students are exempt from this test if they have already earned an undergraduate degree from an institution at which English was the sole language of instruction. Students who do not plan to work as teaching assistants do not need to take the TOP.

For students who receive a clear pass (7.1 or above) on the TOP, no coursework is required. Students who receive a marginal pass (between 6.4 and 7.0) are required to take an approved oral skills course during their first quarter as teaching assistants. Students scoring 6.3 or below are not eligible to become teaching assistants, and are encouraged to complete recommended ESL coursework before taking the TOP examination again.

No other oral examination is accepted. Entering graduate students who plan to work as teaching assistants in their first quarter at UCLA must arrive early enough to take the TOP before instruction begins. The examination schedule and other information about TOP are available on the Center for the Advancement of Teaching (CAT) TOP web page.

**Admission Policies**

**Duplicate Degrees**

The University of California, in general, discourages the duplication of advanced degrees. At the same time, it recognizes that a professional degree does not duplicate an academic one, and that pressing needs may exist for degrees in different areas (see Graduate Articulated and Concurrent Degrees in Majors and Degrees). Students who apply for a second academic degree at the same level or lower than the one they already hold are required to show compelling cause to the department. The Division of Graduate Education is particularly concerned that a careful review and special justification be made by the graduate program in all cases where an applicant or continuing student is recommended for admission to a second doctoral program. This concern also extends to a student support recommendation for pursuit of a second doctorate degree.
All degree requirements and UCLA regulations apply just as they do for a first degree. Courses and other degree requirements already applied to the earlier degree may not be applied to the second.

No Degree Objective

UCLA has no special limited or unclassified categories of graduate admission. Under some circumstances, however, applicants may be admitted for coursework without a degree objective. For example, teachers with a master’s degree who wish some refresher study, or international students on a one-year stay in the U.S., may wish to apply in this manner. Requirements for admission are the same as those for degree programs, and the academic program must agree to accept the student for no degree objective (NDO) status. All admissions to NDO status must be specially approved by the dean of the Division of Graduate Education, as must any University financial assistance for students having NDO status.

Readmission

Students who have registered at any time as a graduate student at UCLA and return after an absence (except a formal leave of absence) must file an Application for Graduate Admission.

See Graduate Student Readmission in Policies and Regulations for readmission procedures.

Summer Session Classes

Enrollment in summer session classes does not constitute admission to graduate standing, nor does it substitute for the required continuous registration in fall, winter, and spring quarters. Students who wish to apply summer sessions classes to their subsequent graduate program should consult in advance with their departmental adviser. This is also true if they have been readmitted to graduate standing and wish to resume graduate study in summer sessions. Information and applications are available from Summer Sessions, 1331 Murphy Hall.

If students take summer session classes following the award of the bachelor’s degree, those grades do not appear on the undergraduate transcript (they are included on a separate transcript). After students are accepted by Division of Graduate Education, summer session grades are included on the graduate transcript and computed in the grade-point average.

Registration

Registrar’s Office
1113 Murphy Hall
Registration consists of paying fees and enrolling in classes. Students enroll in UCLA, and in the College or one of the professional schools.

1. Registration fees and other UCLA charges are due the 20th of each month. BruinBill accounts can be viewed through MyUCLA.

2. Enrollment in classes is completed through MyUCLA. Students must complete both processes by the established deadlines to be officially registered for the term.

Graduate students must be either registered and enrolled or on an official leave of absence every term until their degrees are awarded. As an exception, certain graduate students may be eligible to pay the filing fee. Failure to register, have filing fee status, or be on an official leave of absence for any academic term (fall, winter, or spring quarter) constitutes withdrawal from UCLA.

Fees and Payment

Details on fee payment, enrollment procedures, and deadlines are published on the Registrar’s website registration fee payment section.

Electronic Billing

BruinBill accounts are administered electronically (e-bill) through MyUCLA. Financial activity is displayed for the current term, as well as account activity for the last 24 months. Students can pay their BruinBill account electronically using an electronic check with no fee; or American Express, Discover, MasterCard, and VISA credit cards with a fee.

Annual Graduate Fees

Although the exact cost of attending UCLA varies by program, there are some fees that all UCLA students must pay. Each entering and readmitted student is required to submit a Statement of Legal Residence and Statement of Intent to Register to the Division of Graduate Education Diversity, Inclusion, and Admissions office. A student classified as a nonresident of California must pay nonresident supplemental tuition (NRST) in addition to other registration fees. Legal residents of California are not required to pay NRST. Annual graduate fees and NRST are published online. For more information, see Residence for Tuition Purposes in Policies and Regulations.
Professional Degree Program Fees
Students admitted to professional degree programs must also pay professional degree supplemental tuition (PDST), which varies by program. PDST amounts are published on the Registrar’s annual and term fees web page.

Self-Supporting Degree Program Fees
Students in self-supporting degree programs pay an annual fee, which may be assessed per term, course, or unit. For details, contact the individual program. Self-supporting program fees are published on the Registrar’s self-supporting fees web page.

Miscellaneous Fees
Miscellaneous fees include charges for late registration fees payment. Late fees also apply if students file their study list late or do not pay off BruinBill balances on time. Fees are charged if any check is returned by a bank for any reason. Charges are assessed for most petitions and other special requests. There is also a fee for advancement to doctoral candidacy. Study list, document and service, transcript-related, and degree and diploma fees are published on the Registrar’s website fees and residence section.

Student Health Insurance Fee
All graduate students are automatically assessed for and enrolled in the University of California Student Health Insurance Plan (UCSHIP) as a condition of registration at UCLA. Continued enrollment in a qualified health insurance plan is mandatory during all registered terms. UCHISP covers medical, vision, dental, and behavioral health services.

The UCHISP fee is billed each term along with other UCLA fees. UCHISP fulfills all requirements mandated for a qualified health insurance plan as defined by the University of California. The Ashe Student Health and Wellness Center is the primary health care provider for UCHISP, and where all nonemergency medical care is initiated.

Nonregistered students (those who withdraw, or are on approved leave or planned academic leave) may have access to UCHISP services under certain conditions. Contact the Ashe Center to learn more.

UCSHIP Waiver
Students may waive UCHISP if they maintain active enrollment in a qualified health insurance plan that meets all established requirements, apply for a waiver within established deadlines each term, and correctly complete the online waiver form. Students are responsible for providing complete and accurate information. Third-party individuals may not waive UCHISP for a student. Waivers must be submitted before the term fees payment deadline. Deadlines are strictly enforced, and no refunds are issued after the deadline. For more information, see the Ashe insurance web page.

Fees Notice
All fees are subject to change without notice by the Regents. Current academic year fees and update information are available on the Registrar’s annual and term fees web page.

Annual Budget Estimates
Budgets are designed to serve as a guide and are subject to change without notice. Budget information is available from Financial Aid and Scholarships. Budgets for the schools of medicine, dentistry, and nursing are higher due to specialized supplies. More information can be found on the websites of the schools of dentistry, law, medicine, and nursing for their respective students.

Fee Refunds
Students who formally withdraw from UCLA or take an approved leave of absence may receive partial refunds of fees. For more information, see Withdrawal in Policies and Regulations. Consult the Registrar’s refunds web page for policy details and specific refund deadlines for each term.

Fee Deferrals
Academic apprentice personnel are eligible to receive a fee deferral for registration fees assessed during the term in which they serve as an academic apprentice. For more information, students should contact their hiring department. Students are responsible for paying fees by the deferred payment deadline, which is two months after the standard term due date. Whether students attend UCLA, take a leave of absence, or withdraw from the University, they are responsible for the fees; but may be eligible to receive a partial fee refund according to the refund schedule. Fees not paid by the deadline are subject to late fees.

Reduced Fee Programs
Under limited circumstances and with prior approval, certain students may qualify for some reduced fees.

In Absentia Registration
Graduate students who conduct research or engage in approved degree-program-related activities outside California may be eligible for in absentia registration, and reduction of tuition and the student services fee to 15 percent of the full amounts. See In Absentia Registration in Policies and Regulations for more information.
Reduced Units
UCLA recognizes the need for part-time study in special circumstances. When recommended by the department and properly approved by the Division of Graduate Education dean for enrollment in 6 or fewer units, students may be eligible for a one-half reduction in tuition; and a one half-reduction in nonresident supplemental tuition and/or professional degree supplemental tuition, when applicable. Students in self-supporting degree programs are not eligible for fee reductions. Doctoral students who have passed the qualifying examination or advanced to candidacy are not eligible for part-time status. For full part-time status eligibility criteria, see part-time enrollment on the Graduate Education website.

Students must submit a Fee Reduction Request to the Division of Graduate Education by Friday of the second week of the term. The request must include a memo from the student’s faculty advisor that contains sufficient detail to allow the graduate dean to independently evaluate the need for, and feasibility of, part-time student status.

Part-time status may be requested for a maximum of three quarters. Extensions beyond this limit, for a total of up to six quarters, may be approved under exceptional circumstances.

Assessment of reduced fees is based on total enrolled units as of Friday of the third week of the term.

Except for these reductions for eligible and approved part-time students, there is no reduction in tuition; UC SHIP; student services or UCGPC fees; Ackerman Student Union; Wooden Center; student programs, activities, and resources complex (SPARC); or Graduate Students Association fees; or other campus-based fees.

Filing Fee
Graduate students may be eligible to pay the filing fee (half the full amount of the student services fee) in lieu of the full student services fee for the term in which they expect to complete final degree requirements and receive their degree. Students are not eligible to pay the filing fee unless registered for the immediately preceding term. For more information on other eligibility requirements, see filing fee.

Students who pay the filing fee are not eligible for UCLA services, and are not considered to have the same status as registered students.

Reduced Nonresident Supplemental Tuition
The annual nonresident supplemental tuition (NRST) for graduate doctoral students who have advanced to candidacy is reduced by 100 percent, effective the term after the student is advanced. Doctoral students may receive this reduced NRST rate for a maximum of three years. After three years, the full nonresident rate is assessed.

University Employees
Full-time UCLA employees may apply for a reduction of tuition and the student services fee at their campus human resources office. Students who use the part-time fee reduction may not also use the UCLA employee fee reduction.

Class Enrollment
Students enroll in classes through MyUCLA during assigned times—called enrollment appointments—when they are allowed to enroll. Graduate students may enroll in a maximum of 22 units in any one term, unless their graduate program has a lower unit maximum. Students who wish to exceed the maximum must request an increase from their department. The Class Planner feature allows students to create class plans prior to enrollment, share plans with counselors, and quickly add classes during their enrollment appointment. Students use the Find a Class and Enroll feature to search the Schedule of Classes and add available classes to their class plan or study list.

MyUCLA is also used to view enrollment appointments; drop classes; change grade type and number of units; exchange classes; and view the study list, which includes information on class meeting times, final examinations, classmates, grades, textbooks, and class websites. For more information, see Registrar’s study list and enrollment policies web pages.

For classes that require written approval or specialized processing, students may inquire about processing steps through MyUCLA Message Center.

Study List
A study list is the record of courses in which a student is enrolled for the term. At 11:59 p.m. on Friday of the second week of instruction, the study list of enrolled courses becomes official and all wait lists are eliminated. Students should verify their study list through MyUCLA after each enrollment transaction. Students are responsible for all courses and the grading basis as listed on MyUCLA, and cannot receive credit for courses not listed.

After Friday of the second week, most changes to the official study list can be made with a fee through MyUCLA. Some changes require an Enrollment Petition along with approval signatures.

See the study list web page for deadlines and complete instructions.

Errors or omissions should be corrected before the College or school deadlines for changes by petition. Unapproved
withdrawal from or neglect of a course entered on the study list results in a failing grade.

Wait List
Some departments establish wait lists for classes that are full. If an enrolled student drops the class, that seat is filled by a student on the wait list. Students can check enrollment status through MyUCLA. Position on a wait list does not indicate enrollment. Students on a wait list should not assume they will be added to a class.

Wait lists are maintained through Friday of the second week of instruction unless a department deletes them earlier.

Full-Time Graduate Program
Three courses (or 12 units) per term are considered the normal enrollment for graduate students, and are required for students not in doctoral candidacy to be counted for full-time standing in UCLA official enrollment records. Therefore, students are directed by their departments to enroll full time whenever possible.

Throughout their appointments, teaching assistants (TAs) and graduate student researchers (GSRs) are required to be registered and enrolled in at least 12 units. TAs or GSRs terminate their appointments if they take a leave of absence, withdraw, or use a filing fee. Course 375 for TAs, and individual study at the 500 level for GSRs, may be counted toward the 12-unit load.

Graduate students holding fellowships must be enrolled in at least 12 units, both before and after advancement to candidacy. The 12-unit minimum required per term may include, among others, the 500 series (individual study or research).

Veterans are required to make normal progress toward the degree as indicated by the major department. Information on Department of Veterans Affairs regulations is available from the veterans benefits coordinator, 1113 Murphy Hall.

Continuous Registration Policy
Graduate students must be either registered and enrolled or on an official leave of absence every term until the degree is awarded. As an exception, certain graduate students may be eligible to pay the filing fee. Failure to register, have filing fee status, or be on an official leave of absence for any academic term (fall, winter, or spring quarter) constitutes withdrawal from UCLA.

Registration in the Final Term
If students are completing courses; using faculty time, library facilities, laboratories, or other UCLA resources; or receiving UCLA funds, they are required to register in the final term in which they expect to receive their degree.

When the award of a degree is expected at the end of a given term, but special circumstances (not involving preparation of the manuscript) over which a student has no control prevent the completion of all requirements before the first day of instruction in the next term, a student may petition for a waiver of registration for that term. Such petitions must be accompanied by a letter from the graduate faculty adviser or department chair elaborating the exceptional circumstances.

Immunization Requirements
UCLA requires that all incoming students be vaccinated against or show immunity to multiple infectious diseases consistent with guidelines of the American College Health Association, California Department of Public Health, and U.S. Centers for Disease Control and Prevention (CDC). These requirements help protect the health of students and the entire campus community. Students submit their immunization history to the Ashe secure patient portal. See immunization requirements for more information.

Health Assessment and Evaluation
Incoming students enrolling in the school of dentistry, medicine, or nursing—or the Social Welfare Department—must meet specific requirements related to their professional health-care program. Information is available from the Ashe Center. For specific questions, contact the individual department.

Financial Support

Fellowships and Financial Services
1228 Murphy Hall
310-825-1025
Office e-mail

As a major center for graduate study, UCLA offers its qualified graduate students substantial support through several types of financial assistance.

Information on available funding for entering (and re-entering) students is included in the online graduate admission application. Continuing graduate students should complete the online fellowship application. Completed fellowship applications must be returned to the home department by the published deadlines. Some departments have earlier deadlines; see continuing graduate student funding for details.

The Graduate Education website includes a financial support section for entering students and one for continuing students. Both describe the full range of financial assistance
available. Students should contact their department for more detailed information.

**Fellowships**

UCLA administers several awards on the basis of scholarly achievement. Most awards are available in open competition, though some are restricted to new students or to specific departments. Some fellowship and scholarship awards are made from university funds; others are made from endowed funds held in trust by UCLA and given by interested friends and alumni. Still others come from annual donations by educational foundations, industry, government, and individual benefactors.

Most fellowship, traineeship, and grant awards are for one academic year (three terms). Fellowships and grants offer stipends in varying amounts for qualified students. Nonresident tuition fellowships cover nonresident supplemental tuition (NRST), for periods of one to three terms, of selected graduate students who are not California residents.

**Assistantships**

Academic apprenticeships train qualified students for careers in teaching and research, and compensate them for their services. Teaching assistantships offer experience in teaching undergraduates, with faculty supervision. Graduate student researcher appointments give students experience working on faculty-supervised research projects. For more information, see **working at UCLA.**

**Awards Based on Financial Need**

To apply for aid based on financial need, students must complete the online Free Application for Federal Student Aid (FAFSA) or California Dream Act application by the priority filing deadline (March 2). Some awards, such as university grants, are subject to funding availability. Financial aid applicants should make sure that any requested documentation is submitted to Financial Aid and Scholarships as soon as possible.

Students who need financial aid for summer session courses must submit a summer financial aid application in addition to the FAFSA. Summer applications are available on **MyUCLA** (under the Finances and Jobs tab) beginning April 1 and close on August 27. Applications should be submitted by April 30 for on-time consideration.

Financial aid is also available to UCLA students enrolled in summer travel, summer institutes, and UC cross-campus summer programs. See **Financial Aid and Scholarships.**

Financial aid awards include work-study and low-interest loans. Students are usually awarded a financial aid package that is a combination of these forms of assistance. More information is available from **Financial Aid and Scholarships**, A129J Murphy Hall.

**Degree Requirements**

The following information is for prospective applicants and those outside UCLA who are interested in the basic structure of UCLA graduate degree requirements. It is not meant to be comprehensive or to serve as a primary resource for continuing students. Official, specific degree requirements, including language requirements, are detailed on **program requirements for UCLA graduate degrees**. Detailed information and general policies—many of which emanate from the Academic Senate and its Graduate Council—regarding completion of degree requirements, master’s and doctoral committees, examinations, and foreign language requirements are published in **Standards and Procedures for Graduate Study at UCLA**. General regulations concerning graduate courses, standards of scholarship, disqualification, appeal, leave of absence, normal progress toward degree, withdrawal, and other matters also are included.

**Master’s and Doctoral Study**

Graduate students earn a master’s or doctorate degree by distinguished achievement in advanced study and research. In addition to coursework, there are various means of evaluating achievement in study, including qualifying examinations, capstones, and various kinds of laboratory and field work. Achievement in research is primarily assessed through evaluation of the master’s thesis or doctoral dissertation. In addition to advanced study and research, professional master’s and doctoral programs also may include professional training. This training may take the form of fieldwork, internships, or projects, and may lead to professional licensure.

**University Minimum Standards**

The requirements described here for master’s and doctorate degrees are minimum standards set by the University of California and UCLA. Individual schools or departments may set higher standards and may require additional courses and examinations for their master’s degrees. Each department also sets additional requirements for doctorate degrees according to the demands of the field of study. See **program requirements for UCLA graduate degrees** and the departmental graduate adviser for details. Policies and regulations are outlined in **Standards and Procedures for Graduate Study at UCLA.**

**Academic Residence**

For the master’s degree, the minimum residence requirement is one year (three academic terms) of registration in
graduate standing at the University of California, including at least two academic terms at UCLA.

For the doctorate degree, the minimum residence requirement is two years (six academic terms) of registration in graduate standing at the University of California, including one year (usually the second) in continuous residence at UCLA. If students earned a master’s degree at UCLA, one year (three academic terms) of this requirement will have been met. In most cases a longer period of residence is necessary, and from three to five years is generally considered optimal.

Academic residence for both degrees is established by successfully completing a minimum of one graduate or upper-division course (4 units) during a term.

Students may earn one term of residence for summer study in either of these ways: by enrolling in two six-week UCLA summer sessions, taking at least 2 units of upper-division and/or graduate work in each session; or enrolling in one eight-week session, taking at least 4 units. Residence earned through summer enrollment is limited to one third of the degree requirements.

To maintain satisfactory progress toward the degree, UCLA requires at least a 3.0 (B) grade-point average in all courses taken in graduate standing at the University of California, and in all courses applied toward a graduate degree.

For more details on foreign language requirements, see program requirements for UCLA graduate degrees.

Changing Majors
Continuing graduate students may petition for a change of major after discussing plans with the new department. The graduate petition for major/classification change is filed with the Division of Graduate Education. While there is no deadline for this petition, it should be submitted before the end of the tenth week of instruction for changes in the current quarter. Students should contact their department about any deadlines before completing the petition.

Program of Study and Scholarship

Master’s Degree
At least nine graduate and upper-division courses (or any number of fractional courses totaling 36 units) must be completed in graduate standing; at least five of the nine (20 units) must be graduate-level courses. These unit requirements represent the UCLA minimum standard. Many master’s degree programs have higher unit requirements.

UCLA offers master’s degrees under two plans: Plan I, the Master’s Thesis; and Plan II, the Master’s Capstone. Some departments offer both plans, and students must consult with their department to determine the plan for meeting their degree requirements. UCLA minimum requirements are the same under either plan.

Plan I: Master’s Thesis
Every master’s degree thesis plan requires the completion of an approved thesis that demonstrates the student’s ability to perform original, independent research.

Plan II: Master’s Capstone
Following advancement to candidacy, students under Plan II must pass an individual or group capstone project or comprehensive examination. Information concerning this project or examination and its format (which may be a recital, exhibition, project portfolio, etc.) is available from the department and published in program requirements for UCLA graduate degrees.

Doctorate Degree
Doctoral programs are individualized and permit a high degree of specialization. UCLA does not specify course requirements for doctoral programs. Individual programs set their own requirements, subject to Graduate Council approval. These may include specific courses, and these

Foreign Language Requirements
Foreign language requirements are determined by individual departments and programs. Many departments require graduate degree candidates to demonstrate proficiency in one or more foreign languages, so that they can acquire broad knowledge in their field of study and keep abreast of foreign developments in the field.

If their program has a language requirement, students are urged to fulfill it either before they begin graduate study or as early as possible in their graduate career. If the department requires two or more foreign languages, students must complete at least one before the University oral qualifying examination (unless, as is most common, the department requires that both be completed before the examination). All foreign language requirements must be satisfied before advancement to candidacy.

Some departments allow students to fulfill language requirements either by passing departmental examinations or by completing coursework in a foreign language. Certain departments may require additional languages, special competence, or other special procedures. In some departments, English satisfies the foreign language requirement if it is not the native language.
must be completed before students take the University oral qualifying examination. Students determine their course of study in consultation with a graduate faculty adviser until
the doctoral committee is appointed.

**Doctoral Examinations before Advancement to Candidacy**

Prior to advancement to candidacy, doctoral candidates fulfill the coursework, teaching, and/or examinations required by the major department or program. They are supervised during this period by a departmental faculty adviser and/or departmental guidance committee. This committee administers a departmental written and, in some cases, oral examination (not to be confused with the University oral qualifying examination) after students complete the recommended or required work. Once all departmental requirements are met, the department chair consults with the student and then nominates a doctoral committee. All students are required to successfully complete a written qualifying examination and the University oral qualifying examination before advancement to doctoral candidacy.

**University Oral Qualifying Examination**

The doctoral committee, consisting of at least four faculty members nominated by the department, is appointed by the dean of the Division of Graduate Education. Consult *Standards and Procedures for Graduate Study at UCLA* and minimum standards for doctoral committee constitution for details on committee membership. To determine qualifications for advancement to candidacy, the committee administers the University oral qualifying examination and, at its option, a separate written examination.

**Doctoral Dissertation**

Every doctorate degree program requires completion of an approved dissertation that demonstrates the student’s ability to perform original, independent research; and constitutes a distinct contribution to knowledge in the principal field of study.
Policies and Regulations

Students at UCLA are responsible for understanding the policies and regulations established by the Academic Senate. Should any variations exist between explanations in this catalog and regulations in the Manual of the Academic Senate, the manual prevails in all cases.

Academic Policies

The UCLA campus is home to one College and 12 professional schools. Each has its own degree requirements, and each division and school is headed by a dean who has final academic authority.

Academic Terms

Undergraduate programs and most graduate programs at UCLA use the quarter system for academic terms, credit units, and registration fees. An academic quarter term is 10 weeks of instruction, and there are 146 days of instruction in an academic year. Class credit is accumulated in quarter units (see below). Registration fees are due each quarter. For details on academic dates and deadlines, see the Registrar’s term calendar. For fees, see the Registrar’s fees web page.

The School of Law and Geffen School of Medicine use the semester system.

Language of Instruction

UCLA is a premier American public research institution. Courses at UCLA are taught in the English language, unless otherwise noted in the course description (for example, foreign language courses).

Academic Credit

Academic work at UCLA is measured by units of credit, which are used to evaluate the amount of time a student has devoted to a particular subject and to determine a student’s class level.

Units of Credit

Most UCLA courses are assigned a unit value. One unit represents three hours of work per week per term by the student, including both class attendance and preparation.

Class Levels

Undergraduate Student

Undergraduate class level is based on completed and in-progress units, not years attended.

<table>
<thead>
<tr>
<th>UNDERGRADUATE CLASS LEVELS</th>
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<tbody>
<tr>
<td>Class Designation</td>
</tr>
<tr>
<td>Freshman (UFR)</td>
</tr>
<tr>
<td>Sophomore (USO)</td>
</tr>
<tr>
<td>Junior (UJR)</td>
</tr>
<tr>
<td>Senior (USR)</td>
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</tbody>
</table>

Graduate Student

Graduate class level is based on the degree objective, whether or not students are advanced to candidacy for a doctorate, and/or completed units.

<table>
<thead>
<tr>
<th>GRADUATE CLASS LEVELS</th>
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<tbody>
<tr>
<td>Class Designation</td>
</tr>
<tr>
<td>Master (MA/MS) (GMT)</td>
</tr>
<tr>
<td>Professional Master (GPM)</td>
</tr>
<tr>
<td>Doctorate 1 (GD1)</td>
</tr>
<tr>
<td>Doctorate 2 (GD2)</td>
</tr>
<tr>
<td>Professional School (PF)</td>
</tr>
<tr>
<td>Professional School (PF2)</td>
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<tr>
<td>Professional School (PF3)</td>
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</tbody>
</table>

Repetition of Courses

Certain courses, as noted in their course descriptions, may be repeated for credit. Other courses taken at UCLA (except UCLA Extension) may be repeated only according to the following guidelines:

1. To improve the grade-point average (GPA), students may repeat only those courses in which they receive a grade of C– or lower; NP or U grades may be repeated to gain unit credit. Courses in which a letter grade is received may not be repeated on a P/NP or S/U basis. Courses originally taken on a P/NP or S/U basis may be repeated on the same basis or for a letter grade.

2. Repetition of a course more than once requires the approval of the College, school, or dean of the Division.
of Graduate Education, and is granted only under extraordinary circumstances.

3. Degree credit for a course is given only once, but the grade assigned each time the course is taken is permanently recorded on the transcript.

4. For undergraduates who repeat a total of 16 or fewer units, only the most recently earned letter grades and grade points are computed in the GPA. After repeating 16 units, however, the GPA is based on all letter grades assigned and total units attempted.

5. Certain programs may place additional restrictions on the repetition of courses required for those programs.

6. For graduate students, all courses in which a letter grade is given, including repeated courses, are used in computing the GPA.

**Credit for Upper-Division Tutorials**

Credit for upper-division tutorial courses numbered 195 through 199 in a single term is limited to a maximum of 8 units. Subject to regulations governing P/NP grades, students may take these courses on a P/NP or letter-grade basis, but the total number of units allowed in upper-division tutorial courses for a letter grade is 32.

To enroll in an upper-division tutorial course, students must have advanced junior standing and at least a 3.0 GPA in the major field, or must have senior standing. Students who have an outstanding Incomplete (I) grade in an upper-division tutorial course may not enroll in another upper-division tutorial course until the I grade has been removed. On the advice of the instructor and chair, the dean of the College or school may authorize exceptions to the limitations listed. Departments may impose additional limitations on upper-division tutorial courses.

**Credit by Examination**

Students with high scholastic standing may earn credit for regular UCLA courses by taking examinations rather than enrolling in the courses. This is accomplished by establishing, with a UCLA faculty member, an individual plan of study that may include oral and written work in addition to other requirements. To be eligible, undergraduate students must have completed a minimum of 12 units at UCLA. Graduate students must be registered at the time of the examination and are limited to a maximum of three courses taken in this manner.

The results of these courses are entered on the record in the same way as UC transfer credit, and grade points are assigned. Graduate credit earned by examination may be applied to minimum course requirements for master’s degrees but cannot apply to academic residence requirements for master’s or doctorate degrees.

Students need approval from the instructor; the department; and the College, school, or dean of the Division of Graduate Education, from whom petitions for credit by examination (with fee) are available.

**Examinations**

**Alternate Examination Dates Policy**

In compliance with Section 92640(a) of the California Education Code, UCLA must accommodate requests for alternate examination dates for any test or examination at a time when that activity would not violate a student’s religious creed. This requirement does not apply in the event that administering the test or examination at an alternate time would impose an undue hardship that could not reasonably be avoided. Accommodation for alternate examination dates is worked out directly and on an individual basis between the student and the faculty member involved.

In general, students should make such requests of the instructor during the first two weeks of any given academic term, or as soon as possible after a particular examination date is announced by the instructor.

Students unable to reach a satisfactory arrangement with their instructor should contact the Office of Ombuds Services, 105 Strathmore Building; or the Office of Student Conduct, 1206 Murphy Hall, for assistance.

Instructors who have questions or who wish to verify the nature of the religious event or practice involved should contact the Office of Ombuds Services or the Office of Student Conduct for assistance.

**Undergraduate Final Examinations**

No student shall be excused from assigned final examinations, except as provided above in the policy on alternate examination dates and as provided in the following three paragraphs.

The instructor in charge of an undergraduate course is responsible for assigning the final grade in the course. The final grade shall reflect the student’s achievement in the course and shall be based on adequate evaluation of that achievement. The instructor’s method of evaluation must be announced at the beginning of the course. The methods may include a final written examination, term paper, final oral examination, take-home examination, or other evaluation device. Evaluation methods must be of reasonable duration and difficulty and must be in accord with applicable departmental policies. Final written examinations may not exceed three hours’ duration, and are given only at the
times and places established and published by the department chair and the Registrar’s Office.

At the end of the term in which a student is expected to graduate, the major department may examine the student in the field of the major and, with the approval of the Undergraduate Council, assign a credit value to such general examination. The department may also excuse the student from final examinations in courses offered by the department during that term.

An instructor may release to individual students their original final examinations (or copies). This may be done by any method that ensures the students’ right to privacy. Otherwise, the instructor shall retain final examination materials, or a copy thereof, until the end of the next succeeding regular term of instruction, during which period students shall have access to their examinations.

Grades

The work of all students at UCLA is reported in grades. Instructors are required to assign a final grade for each student enrolled in a class.

Undergraduate Grades

The following grades are used to report the quality of undergraduate student work at UCLA:

- A+ Extraordinary
- A Superior
- B Good
- C Fair
- D Poor
- F Fail
- P Passed (achievement at grade C level or better)
- NP Not Passed
- I Incomplete
- IP In Progress
- DR Deferred Report

Grades A, B, C, and D may be modified by a plus (+) or minus (−) suffix. Grades A, B, C, and P denote satisfactory progress toward the degree. A grade of D may be applied toward graduate degrees unless otherwise prohibited by the program requirements. However, courses in which a grade of D is received must be offset by higher grades in the same term for students to remain in good academic standing. A grade of F yields no unit or course credit.

Graduate Grades

The following grades are used to report the quality of graduate student work at UCLA:

- A Superior Achievement
- B Satisfactorily demonstrated potentiality for professional achievement in field of study
- C Passed the course but did not do work indicative of potentiality for professional achievement in field of study
- F Fail
- S Satisfactory (achievement at grade B level or better)
- U Unsatisfactory
- I Incomplete
- IP In Progress
- DR Deferred Report

The grades A, B, and C may be modified by a plus (+) or minus (−) suffix. The grades A, B, and S denote satisfactory progress toward the degree. A grade of C may be applied toward graduate degrees unless otherwise prohibited by the program requirements. However, courses in which a grade of C is received must be offset by higher grades in the same term for students to remain in good academic standing. A grade of F yields no unit or course credit.

The schools of dentistry, law, and medicine use their own grading codes. Students interested in dentistry, law, or medicine programs should contact the appropriate school for more information.

Grade Points

Grade points per unit are assigned by the Registrar as follows:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Grade Points per Unit</th>
<th>Grade</th>
<th>Grade Points per Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>4.0</td>
<td>C−</td>
<td>1.7</td>
</tr>
<tr>
<td>A</td>
<td>4.0</td>
<td>D+</td>
<td>1.3</td>
</tr>
<tr>
<td>A−</td>
<td>3.7</td>
<td>D</td>
<td>1.0</td>
</tr>
<tr>
<td>B+</td>
<td>3.3</td>
<td>D−</td>
<td>0.7</td>
</tr>
<tr>
<td>B</td>
<td>3.0</td>
<td>F</td>
<td>0.0</td>
</tr>
<tr>
<td>B−</td>
<td>2.7</td>
<td>NP</td>
<td>0.0</td>
</tr>
<tr>
<td>C+</td>
<td>2.3</td>
<td>U</td>
<td>0.0</td>
</tr>
<tr>
<td>C</td>
<td>2.0</td>
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</tr>
</tbody>
</table>

As indicated, a plus (+) or minus (−) suffix added to a grade raises or lowers the grade-point value, except in the case of A+, which carries the same number of grade points as the A grade. Courses in which students receive a grade of P or S
may count toward satisfaction of degree requirements, but these grades, as well as DR, I, IP, and NR, are disregarded in determining the grade-point average. (If a grade of I is later removed and a letter grade assigned, units and grade points are included in subsequent GPAs.) NR indicates that no grade was received from the instructor.

**Grade-Point Average**

The grade-point average (GPA) is determined by dividing the number of grade points earned by the number of units attempted. The total grade points earned for a course equals the number of grade points assigned times the number of course units. For example, if a student takes three 4-unit courses and receives grades of A–, B–, and C+, then the GPA for the term equals the total grade points (34.8) divided by the total course units (12); the GPA is 2.9. For satisfactory standing, undergraduate students must maintain a 2.0 (C) GPA and graduate students a 3.0 (B) GPA in all courses taken at any UC campus (except UCLA Extension).

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<tr>
<th>GRADE-POINT EXAMPLE</th>
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<tr>
<td>Grade</td>
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<tr>
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<tr>
<td>A–</td>
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<td>B–</td>
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<td>C+</td>
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<td>Total</td>
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Only grades earned in regular session or summer sessions at any UC campus—and grades earned by undergraduate students in UCLA Extension courses prefixed by XLC—are computed in the UCLA grade-point average. Grades earned at another institution or in UCLA Extension courses other than those prefixed by XLC do not affect the GPA.

Other schools and agencies may calculate GPAs differently from UCLA when evaluating records for admission to graduate and professional school programs. Students should contact those entities about such policies.

**Passed/Not Passed Grades**

Undergraduate students in good standing who are enrolled in at least 12 units (14 in the Henry Samueli School of Engineering and Applied Science) may take certain courses on a Passed/Not Passed (P/NP) basis.

The grade P is assigned for a letter grade of C or better. Units earned this way count toward degree requirements but do not affect the GPA. Students receive neither units nor course credit for a grade of NP.

Students may enroll in one course each term on a P/NP basis (two courses if they have not elected the P/NP option in the preceding term). Their department or school may require that they take some or all courses in their major for a letter grade. Certain other courses or programs may also be exempt from the P/NP option; contact the College or school for details.

Students may make changes to or from P/NP grading through the sixth week of instruction using MyUCLA.

**Satisfactory/Unsatisfactory Grades**

Graduate students in good standing (minimum 3.0 GPA) may enroll for Satisfactory/Unsatisfactory (S/U) grading in one graduate or upper-division course outside the major field each term, in addition to any courses offered only on an S/U grading basis within the major. The grade S is assigned for a letter grade of B or better, but units earned in this manner are not counted in computing the GPA. Students receive neither units nor degree credit for a grade of U. They may not elect the S/U option for summer session courses without an approved petition.

Courses taken on an S/U basis outside the major, and 500-series courses within the major, are applicable toward degree and/or academic residence requirements if so approved. Interdepartmental majors may not apply S/U courses to degree requirements, except for 500-series courses.

Students may make changes to or from S/U grading through the tenth week of instruction using MyUCLA.

**Incomplete Grades**

Once a grade of Incomplete (I) is assigned, it remains on the transcript along with the passing grade students may later receive for the course. The instructor may assign the grade I when work is of passing quality but is incomplete for a good cause (such as illness or other serious problem). It is the student’s responsibility to discuss with the instructor the possibility of receiving an Incomplete as opposed to a non-passing grade.

If a grade of I is assigned, students may receive unit credit and grade points by satisfactorily completing the coursework as specified by the instructor. Students should not re-enroll in the course; if they do, it is recorded twice on the transcript. If the work is not completed by the end of the next full term in residence, the I lapses to an F, NP, or U as appropriate. For undergraduate students, the College or school may extend the deadline in unusual cases.

**In Progress Grades**

For certain courses extending over more than one term, evaluation of student performance is deferred until the end of the final term of the course. Provisional grades of In Progress (IP) are assigned in the intervening term(s) and are
replaced with the final grade when students complete the full sequence. The College or school faculty, or the Division of Graduate Education, determines credit if students do not complete the full sequence and petition for partial credit.

Deferred Report Grades

Students may receive a grade of Deferred Report (DR) when the instructor believes their work to be complete but cannot assign a grade because of disciplinary proceedings or other problems. If students are given a grade of DR, the Office of the Dean of Students assists them in resolving the problem. For graduate students, the dean of the Division of Graduate Education sets a deadline by which the DR lapses to an F if the problem is not resolved and a grade assigned. The DR is changed to a grade, or perhaps to an incomplete, when the instructor provides written confirmation that the situation is resolved. The DR is not included in determining the grade-point average.

Grade Assignment

The instructor in charge of a course is responsible for determining the grade of each student in the course. The standards for evaluating student performance are based on the course description as approved by the appropriate course committee.

The final grade in the course is based on the instructor’s evaluation of the student’s achievement in the course. When on an examination or other work submitted by a student, the Office of the Dean of Students assists them in resolving the problem. For graduate students, the dean of the Division of Graduate Education sets a deadline by which the DR lapses to an F if the problem is not resolved and a grade assigned. The DR is changed to a grade, or perhaps to an incomplete, when the instructor provides written confirmation that the situation is resolved. The DR is not included in determining the grade-point average.

Grade Correction

All grades, except DR, I, and IP, are final when filed by the instructor in the end-of-term course report. However, the Registrar’s Office is authorized to change a final grade (1) on written request of an instructor, provided that a clerical or procedural error is the reason for the change; or (2) on written request of the chair of the UCLA Academic Senate, in cases where it has been determined by the Committee on Privilege and Tenure that an instructor has assigned a grade on any basis other than academic grounds. No change of grade may be made on the basis of re-examination or, with the exception of I and IP grades, the completion of additional work. Any grade change request must be made more than one year after the original filing must be validated for authenticity of the instructor’s signature by the department chair. If a charge is sustained by the Academic Senate committees on Charges and on Privilege and Tenure, an ad hoc committee is appointed within two weeks to review the disputed grade, and any warranted change is made within four weeks.

Grade Complaints

A grade may be appealed, on any reasonable grounds, to the instructor, the chair of the department, and the dean of the division or school.

If the student believes that the instructor has violated the Faculty Conduct Policies by assigning the grade on any basis other than academic grounds, the matter should first be taken up with the instructor. If the matter is not resolved, the student may go for counsel to the Office of Ombuds Services, or may follow the procedures for the formal filing of charges. If a charge is sustained by the Academic Senate committees on Charges and on Privilege and Tenure, an ad hoc committee is appointed within two weeks to review the disputed grade, and any warranted change is made within four weeks.

Absence and Readmission

To be registered for a term, students must enroll in courses and pay fees according to deadlines specified in the Registrar’s term calendar. Students who do not register are subject to the following policies on absence and readmission.

Students who register and subsequently discontinue coursework or stop payment on registration fees checks—without an approved petition for withdrawal, leave of absence, or cancellation—receive grades of F, NP, or U, as appropriate, for all courses in which they are enrolled for that term. A fine is assessed if any check for registration fees payment is returned by a bank for stopped payment, insufficient funds, or any other reason. No fees are refunded, and future registration privileges may be curtailed or revoked.

Cancellation of Registration

Before the first day of classes, students may cancel registration by completing and submitting a Cancellation of Registration form. Refund is as follows: For new undergraduate and dentistry students, fees paid are refunded except for the nonrefundable acceptance of admission fee. For new grad-
uate, undergraduate, continuing, and re-entering students, a service fee is deducted from the amount of fees paid. Graduate students who cancel their registration and do not apply for a formal leave of absence must file for readmission to return to UCLA.

Withdrawal
Withdrawing from UCLA means discontinuing attendance in all courses in which the student enrolled. Students who withdraw during a term must file a Withdrawal Notice.

When students officially withdraw, a percentage of the term fees may be refunded depending on the date the withdrawal form is filed. See the Registrar’s withdrawal web page for policy details and specific refund dates.

The UCSHIP fee is nonrefundable in most cases. Contact the Arthur Ashe Student Health and Wellness Center insurance office for more information.

Students may withdraw only if they have not taken any final examinations or otherwise completed the work in any classes. For undergraduates, one withdrawal places no restriction on readmission or continuation if they started the term in good academic standing. If they withdraw after one or more previous withdrawals or while in academic difficulty, a restriction may be placed on their continuance in undergraduate standing. Before withdrawing, they are urged to consult with faculty, department, or College or school advisers to consider the full implications of this action.

Undergraduates may also withdraw from a term retroactively, provided no final examinations have been taken and no coursework has been completed. No withdrawals are accepted once they have officially graduated from UCLA.

Undergraduate One-Term Absence
Undergraduate students who complete a term (fall, winter, or spring quarter) and do not register the following term may return to UCLA the subsequent term as a continuing student, and be eligible to register and enroll in advance.

Students on a one-term absence who plan to attend another institution—including UCLA Extension—should discuss plans with their College or school counselor before enrolling elsewhere. On returning to UCLA, students must have an official transcript sent from the institution directly to UCLA Undergraduate Admission to have coursework evaluated.

Planned Academic Leave (PAL) for International Travel
Students who plan to participate in a study-abroad program sponsored by an institution other than the University of California are required to take a planned academic leave of absence (PAL) from UCLA. After they are accepted into a program, students must register the program with the UCLA International Education Office (IEO), B300 Murphy Hall. Registering the program also generates the student application for the PAL.

See IEO non-UC programs for program and registration requirements.

Students returning from an approved PAL for participation in a registered non-UC study abroad program are not required to seek readmission, but must provide official transcripts for coursework evaluation.

Undergraduate Readmission
To return to UCLA after an absence of more than one term, students—except for those on PAL for non-UC study abroad—must complete an Undergraduate Readmission Application and file it with the Registrar’s Office in accordance with published deadlines. A nonrefundable fee applies.

Students must submit official transcripts from all institutions (including UCLA Extension) and a completed Statement of Legal Residence with readmission applications. Coursework is evaluated when official transcripts are received. The paper records of nonregistered students, including transcripts submitted for transfer credit, are retained by the Registrar’s Office for five academic years after the last registered term.

Students who have not registered for five years must resubmit official transcripts of all work completed outside UCLA. Readmission is generally approved if students were in good academic standing (2.0 GPA) when they left UCLA, if coursework completed elsewhere in the interim is satisfactory, and if readmission applications are filed on time. The College or school may have other regulations. Contact the readmission clerk for more information.

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<th>READMISSION DEADLINES</th>
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<td>Winter Quarter</td>
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<td>Spring Quarter</td>
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Graduate Student Continuous Registration Policy
Graduate students must be either registered and enrolled or on an official leave of absence every term until their degrees are awarded. As an exception, certain graduate students may be eligible to pay the filing fee. Failure to register, have filing fee status, or be on an official leave of absence for any term (fall, winter, or spring quarter) constitutes withdrawal from UCLA.
Graduate Leave of Absence

Continuing graduate students in good standing (3.0 GPA or above) who have completed at least one term of UCLA graduate work may, with the support of their department and approval of the Division of Graduate Education, be eligible for leaves of absence. Graduate students are allowed three quarters of official leave of absence. See the Leave of Absence Request web page; for filing deadlines, see the Registrar’s term calendar.

Federal policy governing students on F-1 and J-1 visas restricts leaves of absence to certain conditions. The Dashew Center for International Students and Scholars, in consultation with the Division of Graduate Education, individually evaluates each international graduate student request for a leave of absence to determine that it meets federal (and UCLA) eligibility criteria.

Students on approved leave of absence are not permitted to use faculty time or make use of UCLA facilities for more than 12 hours since their last registration, and are not eligible for apprentice personnel employment or other services normally available to registered students. There is no need to apply for readmission, since the approved leave is for readmission to a specific term. The Registrar’s Office notifies students about registration for the returning term.

Research doctoral students who are new parents or who are confronted with extraordinary parenting demands should consult Standards and Procedures for Graduate Study at UCLA (PDF) regarding Graduate Council policy requiring program accommodations for them.

In Absentia Registration

Academic and professional graduate students who conduct research or engage in approved degree program-related activities outside California may be eligible for in absentia registration. Students registered in absentia pay 15 percent of tuition and the student services fee, but pay the full amounts of other mandatory fees such as health insurance and nonresident supplemental tuition (if applicable). In absentia registration and fee reductions may be used for a maximum of six quarters or four semesters for academic doctoral students, and up to three quarters or two semesters for master’s and professional graduate students. See the In Absentia Registration Petition web page.

Graduate Student Readmission

Students who are granted a formal leave of absence do not have to apply for readmission if they resume their graduate work in accordance with the terms of the leave. All other continuing graduate students who fail to register for any regular session, or who fail to complete a term through cancellation or withdrawal, must apply for readmission.

Students who have registered at any time as a graduate student at UCLA and return after an absence (except a formal leave of absence) must file an Application for Graduate Admission. Payment of the nonrefundable application fee may be made by credit card only. Transcripts of all academic work completed since registration at UCLA as a graduate student must also be submitted.

Transcripts and Records

The transcript is the complete record of a student’s academic work at UCLA. The Registrar prepares, maintains, and permanently retains this record. Additional records may include financial and personal student information.

Transcripts

The transcript reflects all undergraduate and graduate work completed in UCLA regular and summer sessions. It lists chronologically courses, units, grades, cumulative GPA, transfer credits, and total units.

An official UCLA paper academic transcript is printed on security paper to safeguard against unauthorized duplication, alteration, and misrepresentation. The paper has a faint multicolor security background design, and a border bearing the words University of California, Los Angeles. Authentication details are located in the lower right-hand corner of the transcript. The legend is located on the reverse of the document.

An official UCLA electronic (PDF) academic transcript includes a cover page with UCLA, student, and recipient information. Transcript pages have a background design (except for transcripts sent to LSAC, which have no background design). Identifying text is located at the top of the page. Authentication details are located in the lower right-hand corner of the transcript. A legend page is also included.

Two types of official UCLA transcript—academic transcript and proof of enrollment—are designed to meet specific needs. Both can be ordered through MyUCLA, as can an unofficial (student copy) academic transcript.

Academic Transcript

The academic transcript is a student’s complete academic record, including a list of courses taken, transfer credit, units, grades, grade-point average (GPA), earned UCLA degrees, and in-progress term information. In-progress information includes a list of courses in which a student enrolled during the term the transcript was ordered, and
other in-progress information such as a change in major or removal of an I grade.

Grades for completed terms are processed immediately following the conclusion of final examinations. Complete academic transcripts are available approximately two weeks after the last day of the term. For graduating students, academic transcripts with the graduation date included are available approximately six weeks after the term-end date. Students who need earlier proof of graduation may contact a degree auditor.

For auto insurance good-student discount purposes, an academic transcript can be attached to the insurance form; or the form can be presented at 1113 Murphy Hall.

Proof of Enrollment
Proof of enrollment certifies registration (fee payment and enrollment status) and degrees earned. It does not display courses or grades, but does include enrollment status, degree-expected term, and UCLA degree awarded with date of award. Proof of enrollment confirms student enrollment status only after registration fees have been paid for the term.

Verification of student workload is based on actual enrolled units. It does not consider wait-listed units. A study list of 12 or more units for registered undergraduate students, or 8 or more units for registered graduate students, is considered full-time status for enrollment reporting, insurance, intercollegiate athletics, and financial aid purposes.

Verification of degree can be issued after the degree has been posted to the student record, approximately six weeks after the term ends. Students who need verification before the degree is posted may contact a degree auditor.

Third-Party Verifications
UCLA has authorized National Student Clearinghouse to act as its agent for all third-party verifications of student enrollment and degrees, including those for loans and creditors. Approved by the U.S. Department of Education, the Clearinghouse is a national organization that facilitates and expedites student enrollment verifications for creditors and other student service-related agencies. The Clearinghouse abides by all provisions of the Family Educational Rights and Privacy Act (FERPA). Degree verification for the most recent term is available approximately seven weeks after the term ends.

Ordering Transcripts
Continuing students must order official academic transcripts through MyUCLA. Other students may order transcripts through MyUCLA or Parchment. Most students can order proof of enrollment through a proof of enrollment request.

Orders are not processed if students have outstanding financial, academic, or administrative obligations (holds) to UCLA. Transcripts of work completed elsewhere must be requested directly from the campus or institution concerned.

More information about ordering transcripts is available on the Registrar’s student records web page or by sending e-mail to the transcripts unit.

For UCLA Extension transcripts, order online or by mail from UCLA Extension, PO Box 24901, Department K, Los Angeles, CA 90024-0901.

Fees and Payment
Most academic transcripts and proofs of enrollment are available at no charge after payment of the document fee.

A fee may be charged for some transcript-related services. For example, forms that must be completed by the Registrar’s Office and envelopes that require official signatures incur a special handling fee. Transcripts can be faxed for an additional fee. Faxed transcripts are generally not considered official, and confidentiality cannot be guaranteed. For exact fees, see transcript-related fees.

Student Records
Student files of pertinent documents are maintained for up to five years from the admit term. Students may view their records at the Registrar’s Office, 1113 Murphy Hall. A five-day advance notice is required for viewing.

See also regulations concerning Disclosure of Student Records.

MyUCLA
Through MyUCLA, students can obtain academic, financial, and personal information from their UCLA academic records.

Name or Address Change
Students who wish to change their legal name on official UCLA records should submit a Legal Name Change or Correction request. Supporting documentation is required. Students on an F or J visa must provide a current passport bearing the exact same name as the new name. All name changes are recorded on the transcript.

Student address changes should be updated through MyUCLA.

Closure of Student Records
Student records are closed to revisions in enrollment, grading, and academic actions on award of a degree. Students are responsible for requesting review of their record prior
Changes requested by an individual after award of a degree are considered by the College or school only under extraordinary circumstances. Supportive documentation is required. On action of the academic dean, a statement of the request for revision and a note of the change will be recorded only in the memoranda section of the transcript.

Maintaining Student Work

During their academic careers at UCLA, undergraduate students create evidence of their learning, which includes but is not limited to course projects, papers, and assignments; student responses on examinations; and documentation of student performance and creative expression. Regularly, and on an ongoing basis, faculty may choose to store a sample of this evidence in digital archives maintained by the Division of Undergraduate Education. All information stored, created, or derived by this archival function is governed by the faculty and the leadership of UCLA academic departments and interdepartmental degree programs. The purpose of maintaining this archive is to make this evidence available exclusively for departmental research studies conducted to inform academic program improvement and to ensure institutional effectiveness.

In the event an academic department or interdepartmental program chooses to conduct a program improvement research study, it may opt to use a sample of evidence that it has chosen to archive, and it may grant permission for the Division of Undergraduate Education, Division of Graduate Education, or other collaborators from the UCLA academic community to evaluate and analyze the student learning. The evidence of student learning is stored anonymously, with no identifiers of individual students attached to the records in the archive. Assessment of student performance in program improvement research studies is not connected with any academic record of the individual student’s performance. Assessment reports may be created for internal departmental improvement purposes only, and they may include an aggregation of student characteristics associated with learning achievement. Evidence of student learning is purged from the digital archive after being stored for a period of 12 years, to ensure it can be made available for analysis of departments and programs in support of the Academic Senate program review requirements.

Students can designate that materials they created, which have been sampled by the faculty, be excluded from the Division of Undergraduate Education digital archive by opting out online.

Degrees

Students must satisfy UC requirements, College or school requirements, and department requirements as described in this catalog.

Undergraduate Degrees

Undergraduate degree requirements are subject to the following degree policies.

Student Responsibility

It is students’ responsibility to keep informed of and to comply with the rules, regulations, and policies affecting their academic standing. Meeting academic deadlines, monitoring the study list for accuracy, completing requirements, and fulfills degree requirements are all part of their academic duties as students.

Minimum Scholarship

The grades A through C and Passed (P) denote satisfactory progress toward the bachelor’s degree. The grades C– through D– yield unit credit but may not satisfy certain scholarship requirements. Even when they do, they must be offset by grades of C+ or better in other courses. Students must earn at least a 2.0 (C) grade-point average (GPA) in all courses taken at any UC campus. Students who fail to maintain this level may be placed on academic probation or may become subject to dismissal. The College and each school may set additional scholarship requirements.

Academic Probation

Students are placed on probation if their overall or term GPA falls between 1.5 and 1.99. While they are on probation, they may not take any course on a Passed/Not Passed (P/NP) basis. Probation ends at the close of a regular term if students have attained a 2.0 (C) GPA for the term and a cumulative 2.0 (C) GPA in all UC coursework. Students who do not end probation within two terms are subject to dismissal.

Academic Dismissal

Students are subject to dismissal from UCLA under any of the following conditions:

- Their GPA in any one term is lower than 1.5
- They do not earn at least a 2.0 (C) GPA in any term when they are on probation
- They do not end probation within two terms

If students are subject to dismissal, their transcripts carry that notation. Students should make an appointment with their College or school counselor. Depending on the situation, they are given conditions for continuation or are dismissed from UCLA.
Progress toward the Degree

UCLA is a full-time institution, and it is expected that students complete their undergraduate degree requirements promptly. Normal progress toward graduation in four years is defined as the completion of 45 units per year, or 15 units per term.

Minimum Progress and Expected Cumulative Progress

The College and each school enforce minimum progress regulations. The College also enforces expected cumulative progress requirements. Students may be subject to disqualification for failing to meet minimum progress and expected cumulative progress requirements. See College and Schools for specific minimum progress, expected cumulative progress, and study list regulations.

Petitions

A petition is a form submitted to explain an exception from any UCLA or UC standard rule or regulation. It is the only way to obtain formal approval from the department, College or school, Registrar, or office with authority over a particular request. Some petitions require a fee.

Some uses of petitions are to change the College, school, or major; make changes to the study list after MyUCLA processing ends; or obtain credit by examination. Students may petition for concurrent enrollment, double major, or waiver of scholarship requirements.

Transfer Credit

Every California community college has transfer course agreements that specify which courses will receive transfer credit. These courses are displayed on ASSIST, the statewide transfer information website. Students can get some knowledge of transfer credit from accredited institutions other than the University of California, or California community colleges, by comparing the descriptions of courses taken with those in this catalog.

Once students complete the courses, they must have the other institution send official transcripts to UCLA Undergraduate Admission electronically through an approved vendor or by mail to Box 951436, Los Angeles, CA 90095-1436. Transfer students should discuss transfer credit with their College or school and/or department adviser.

Community College/Lower Division Transfer Limitation

After completing 105 lower-division quarter units toward the degree at all institutions attended, students are allowed no further unit credit for courses completed at a community college or for lower-division courses completed at any institution outside of the University of California. The University of California does not grant transfer credit for community college or lower-division courses beyond 105 quarter units, but students may still receive subject credit for this coursework to satisfy lower-division requirements. Units earned through Advanced Placement (AP), International Baccalaureate (IB), and/or A-Level examinations are not included in the limitation. Units earned at any UC campus (through extension, summer, cross-campus, UCEAP, Intercampus Visitor Program, and regular academic year enrollment) are not included in the limitation. To convert semester units into quarter units, multiply the semester units by 1.5; for example, 12 semester units x 1.5 = 18 quarter units. To convert quarter units into semester units, multiply the quarter units by .666; for example, 12 quarter units x .666 = 7.99 or 8 semester units.

Summer Session Courses

Summer session courses at any UC campus are computed in the UCLA grade-point average.

UCLA Extension

Students who wish to receive degree credit for work taken through UCLA Extension should take courses that correspond in number to the undergraduate courses offered in regular session. The designation XL or XLC before the number of the Extension course signifies that the course is equivalent to the regular-session course bearing the same number. Grades earned by undergraduate students in the School of the Arts and Architecture, School of Education and Information Studies, College of Letters and Science, and Herb Alpert School of Music in courses prefixed by XLC are computed in the UCLA grade-point average. No degree credit is given for courses numbered X300 through X499. Concurrent enrollment in Extension and regular session is not permitted.

Degree Checks

Any time before graduation, a student may request an official degree check. This review of degree progress details requirements that remain to complete the bachelor’s degree. The degree-check process may be different for the College and each school.

The Degree Audit—a computer-generated assessment of all degree requirements and the courses taken to fulfill them—is an essential review tool. It can be viewed and printed through MyUCLA, or ordered at a counseling office. The student should review their Degree Audit with their College, school, or department counselor to ensure that all requirements will be satisfied. Engineering students are encouraged to also consult the school undergraduate degree audit web page.
Graduation

The awarding of degrees is the culmination of several steps that begin when students identify the term in which they expect to complete degree requirements.

Undergraduate Students

Approximately nine out of every 10 UCLA undergraduates eventually receive a bachelor’s degree, either from UCLA or from another campus or institution. One-third of all UCLA bachelor’s degree recipients go on to graduate school.

Declaration of Candidacy

All undergraduate students are assigned a degree-expected term when they first register at UCLA. This term is based on admission level (first-year or advanced standing), and time-to-degree based on undergraduate program. For most students, this is 12 regular terms (first-year) or six regular terms (transfer). Students must petition the College or school counseling unit to enroll in additional regular terms beyond the allowed number.

Friday of finals week is the last day to declare candidacy for the current term.

Students can verify the degree-expected term through MyUCLA. For questions about degree candidacy status, College students may contact the Registrar’s Office. All other students should contact their school office. Declaring candidacy is not a guarantee of graduation.

In Absentia Graduation

Students who intend to complete degree requirements while nonregistered (those who take a course through UCLA Extension or at another institution, remove an Incomplete grade, and so on) must notify their degree auditor of their intention to graduate as a nonregistered student by Friday of finals week. Students graduating in absentia are assessed the undergraduate in absentia degree-processing fee if they were not also registered in the term immediately prior to their degree-expected term.

Retroactive Degree and Graduation

Students who do not declare candidacy in the term that final degree requirements are met, or who had pending degree-related issues (such as grade changes, department approval of major courses, or advanced-standing work at other institutions) in the declared term, must submit a Retroactive Degree Request form. If the request is approved, the degree is recorded on the transcript immediately, and the student record is closed to any further revision. The $75 special order diploma fee applies.
Final Degree Audits and Graduation

Degree auditors are responsible for verifying each candidate’s eligibility for a bachelor’s degree. Degree auditors have information pertaining to a student’s graduation only if that student declared candidacy and completed 160 quarter units (172 units for engineering students). Degree auditors are available in the following offices:

- College of Letters and Science
  Registrar’s Office, 1113 Murphy Hall
- School of the Arts and Architecture
  Office of Student Services, 2200 Broad Art Center
- School of Education and Information Studies
  Office of Student Services, 1002 Moore Hall
- Henry Samueli School of Engineering and Applied Science
  Office of Academic and Student Affairs, 6246 Boelter Hall
- Herb Alpert School of Music
  Office of Student Affairs, 1642 Schoenberg Music Building
- School of Nursing
  Student Affairs Office, 2-147 Factor Building
- Meyer and Renee Luskin School of Public Affairs
  Student Services Office, 3250 Public Affairs Building
- Jonathan and Karin Fielding School of Public Health
  Office of Undergraduate Student Services, 16-059 Center for Health Sciences
- School of Theater, Film, and Television
  Student Services Office, 103 East Melnitz Building

During their graduating term, students should inform a degree auditor of grade changes, petitions for substitutions or exemptions, transfer credits, or similar changes that may affect their degree. If graduation eligibility cannot be verified, a degree auditor notifies the student of any outstanding requirements or other degree completion problems.

Student records are closed to revisions in enrollment, grading, and academic actions on award of a degree. Students are responsible for requesting review of their record prior to award of their degree.

A summary of shortages for the bachelor’s degree statement is sent to each current-term candidate who does not satisfy degree requirements that term. Students who receive such notices should contact a degree auditor immediately. If students expect to satisfy degree requirements in a later term, they must change their degree-expected term through MyUCLA. They may be assessed applicable fees.

Contact degree auditors only for questions about degree audits. Contact information is published on the Registrar’s service directory. Do not contact auditors regarding commencement procedures; see Commencement.

Graduate Students

Candidates for both master’s and doctorate degrees must be advanced to candidacy and complete all degree requirements—including the master’s thesis or capstone, or doctoral dissertation—before the degree is conferred. See the filing deadlines calendar for thesis/dissertation filing deadlines. For graduate degree requirements and procedures, see program requirements for UCLA graduate degrees and Standards and Procedures for Graduate Study at UCLA (PDF).

Degree Date

Degrees are awarded at the end of fall, winter, and spring quarters and at the end of summer session C. School of Law and School of Medicine degrees are normally awarded at the end of fall and spring semesters. See the UCLA term calendar for the degree-award date, which is the final day of the term.

Commencement

The College, each school, and the Division of Graduate Education conduct commencement ceremonies for their graduates. Ceremonies feature addresses from distinguished speakers, and recognize candidates who have achieved high academic distinction and honors.

Check with the College, school, or department for eligibility requirements, programs, and time schedules. Commencement information—including the schedule of ceremonies, maps and parking, and updates—is published online. Doctoral hooding ceremony information is also published online.

Privacy

Names of students who request that no public information be released do not appear in commencement ceremony programs. Students may change their privacy status on MyUCLA.

Diplomas

Diplomas for both undergraduate and graduate students are available approximately three months after the degree-award date. After week three of their expected term of graduation, students should provide instructions for obtaining the diploma in person or by mail using the diploma request feature on MyUCLA. To expedite receipt of diplomas, instructions should be given no later than one month after the last day of the degree term. Students may
also request diplomas in person at 1113 Murphy Hall or by returning a Diploma Mail Request form.

Name Change
To appear on the diploma, a name change must be submitted using a Legal Name Change or Correction by the last day of the degree-expected term. Supporting documentation is required. Once the degree is awarded, only a court order will be accepted to make a name change; a replacement diploma fee applies.

Replacement Diploma
If an original diploma is destroyed, a replacement may be ordered by using the diploma request feature on MyUCLA. Students may also order a replacement diploma in person at 1113 Murphy Hall, or by returning a Replacement Diploma Request form. A replacement diploma fee applies. The new diploma bears a reissue date and signatures of current California, UC, and UCLA officials.

Administrative Policies

Alcohol and Substance Policies
UCLA is designated as a drug-free environment, and only under certain conditions is alcohol consumption permitted. In keeping with its educational mission, the University assumes the responsibility to better inform the UCLA community about alcohol and substance abuse.

The sale, manufacture, distribution, or possession of designated controlled substances without a prescription is illegal under both state and federal laws. Such laws are strictly enforced by UCPD police officers. Student violators are subject to University disciplinary action, criminal prosecution, fine, and imprisonment. Refer to the UCLA policies on substance abuse for further information.

The sale, consumption, and distribution of alcohol on the UCLA campus is restricted by the UCLA alcohol policy and California state law. Organizations or groups violating alcohol or substance policies or laws may be subject to sanctions by the University.

Financial Aid Standards for Satisfactory Academic Progress
UCLA Financial Aid and Scholarships establishes standards for satisfactory academic progress to measure students’ progress toward degree completion using both qualitative and quantitative methods in accordance with federal regulations. To be eligible for financial aid, students must meet or exceed these standards. Failure to maintain these standards may result in suspension of financial aid eligibility. The standards are as strict as, or more strict than, the UCLA standards for a student enrolled in the same educational program who is not receiving Title IV assistance. See the Standards for Satisfactory Academic Progress Guide (PDF).

Professional Schools
Students attending the schools of Dentistry, Law, Management, Medicine, and UCLA Extension are covered by criteria established by the respective school.

Qualitative Standard
Undergraduate students must maintain a cumulative 2.0 grade-point average (GPA); graduate students must maintain a cumulative 3.0 GPA.

Quantitative Standard
Students must complete a minimum of 67 percent of cumulative coursework attempted.

Maximum Time Frame
Units attempted or total enrolled terms may not exceed 150 percent of the published length of the student’s program.

Academic Major Change/Pursuit of Double Major or Minor
Students who change their academic major, or pursue a double major or minor, do not have additional financial aid eligibility beyond the maximum time frame established in this policy.

Successful Completion of Units
To successfully complete units, students must receive a grade of A, B, C, D, or P (S for graduate students) in each course. Grades of F, I, NP (U for graduate students), NR (No Report), and DR (Deferred Report) do not count as successful completion of coursework attempted.

The standards for satisfactory academic progress apply to all coursework attempted, including coursework for which students did not receive financial aid.

Cancellation of Registration
Cancellation of registration on or before the first day of classes does not count as units attempted.
English as a Second Language and Summer Sessions Coursework

English as a Second Language (ESL) and Summer Sessions coursework counts as units attempted, and toward the cumulative grade-point average.

Remedial Coursework

Remedial coursework counts as units attempted, but does not count toward the cumulative grade-point average.

Repeat Coursework

Repeated courses and grade-point average are treated in accordance with the academic policy as outlined in this Catalog. If the Registrar’s Office counts repeat coursework as attempted/completed, it counts equally for academic progress standards. Financial Aid and Scholarships determines if students are eligible for aid for repeat coursework.

Transfer Coursework

Coursework accepted for transfer credit counts as both units attempted and completed, and has no affect on grade-point average unless the coursework is transferred from another UC campus.

Withdrawal

Withdrawal after the first day of classes during a term counts as units attempted, unless students do not attend any classes for the given term and receive a 100 percent refund of all fees.

Evaluation

Academic progress is evaluated annually after winter quarter grades are available. For students on probation and students who are required to follow an academic plan, academic progress is evaluated each term.

Suspension

Students who fail to meet the standards for satisfactory academic progress are placed on suspension and are no longer eligible to receive financial aid. Suspended students are notified through their MyUCLA account.

Appeal Process

Students who have their financial aid suspended may submit a written appeal using the Satisfactory Academic Progress Appeal form. When filing an appeal, they must provide a full explanation along with documentation, verifying the circumstances that led to their inability to meet the standards for satisfactory academic progress. Before filing an appeal, students should seek assistance from an academic adviser to explore ways to eliminate deficiencies and to establish a realistic plan toward graduation. Refer to the appeal instruction packet for specific examples of valid reasons for an appeal.

Appeal Deadline

Appeals must be submitted to Financial Aid and Scholarships prior to the last day of the term for which students are appealing to have aid reinstated. Retroactive appeals are not considered. Refer to the appeal instruction packet for priority deadlines.

Denied Appeals

If the appeal is denied, students may file a secondary appeal and submit additional information that may help explain the circumstances by which they were not able to maintain the standards for satisfactory academic progress. They are notified of the decision of the secondary appeal in writing; the decision is final.

Probation

Students who have an appeal approved are placed on probation and their academic progress monitored on a quarterly basis to ensure that they meet the conditions of their academic plan.

Reinstatement

Students whose aid eligibility has been suspended for failing to maintain the standards for satisfactory academic progress, or whose satisfactory academic progress appeal has been denied, may regain financial aid eligibility by becoming compliant with the qualitative and quantitative components of the academic progress standards. Students who exceed the maximum time frame cannot regain eligibility through the reinstatement process.

Academic Plans

If students are required to submit an academic plan as a condition of their approved appeal, their financial aid cannot be disbursed until Financial Aid and Scholarships confirms that they are adhering to their academic plan. Students on an academic plan are evaluated each term. Their ability to adhere to the units and courses specified in their academic plan is closely monitored. Failure to adhere to their academic plan causes delays in students’ aid being disbursed, and may result in suspension of their financial aid eligibility.

Residence for Tuition Purposes

Students who have not been living in California with intent to make it their permanent home for more than one year immediately before the residence determination date for
each term in which they propose to attend UCLA must pay nonresident supplemental tuition in addition to all other fees. The residence determination date is the day instruction begins at the last of the University of California campuses to open for the quarter; for schools on the semester system, it is the day instruction begins for the semester.

Who Is a Resident

Persons who are adult students (at least 18 years of age) may establish residence for tuition purposes in California if they are

1. a U.S. citizen
2. a permanent resident or other immigrant, or
3. a nonimmigrant who is not precluded from establishing a domicile in the U.S. Nonimmigrants who are not precluded from establishing a domicile in the U.S. include those who hold valid visas of the following types: A, E, G, H-1, H-4, Humanitarian Parole, I, K, L, N-8, N-9, NATO 1-7, O-1, P-1, P-2, P-3, R, T, U, or V

To establish residence in California, students and/or parents must be physically present in California for more than one year, and they must have come here with the intent to make California their home as opposed to coming to this state to go to school.

Graduate students can establish eligibility independently from their parents.

Undergraduate students under 24 years of age must prove their eligibility as well as their parents’ unless the student proves financial independence. Physical presence within the state solely for educational purposes does not constitute the establishment of California residence, regardless of the length of stay.

Students and/or parents must demonstrate their intention to make California their home by severing any and all residential ties with their former state of residence and establishing those ties with California. If these steps are delayed, the one-year durational period is extended until students and/or parents have demonstrated both presence and intent for one full year.

If their parents are not California residents (over one year of physical presence with intent to remain in the state), students are required to be financially independent in order to be a resident for tuition purposes. Their residence cannot be derived from their spouse, registered domestic partner, or their parents.

Requirements for Financial Independence

A student is considered financially independent if one or more of the following apply: the student

1. is at least 24 years of age by December 31 of the academic year for which they are requesting residence classification
2. is a veteran of the U.S. Armed Forces
3. is serving in the U.S. Armed Forces, including reserve components of these forces
4. is a ward of the court or a foster youth or both parents are deceased
5. has legal dependents other than a spouse
6. is married or has a registered domestic partner as of the residence determination date
7. has been determined to be an unaccompanied youth who was homeless pursuant to federal financial aid rules
8. receives an independent student status determined by UC campus financial aid office
9. is declared by a court to be an emancipated minor
10. is a graduate or professional student
11. is a single undergraduate student and was not claimed as an income tax deduction by their parents or any other individual for the one tax year immediately preceding the term for which they are requesting resident classification; and can demonstrate self-sufficiency for one full year prior to the residence determination date of the term they propose to attend the University, through their own resources (such as employment, commercial loans, financial aid, and savings that can be officially documented). The one year required for self-support might not coincide with the one tax year during which the student must not have been claimed by their parents.

Establishing Intent to Become a California Resident

Indications of student intent to make California their permanent residence can include the following:

1. registering to vote and voting in California elections
2. designating California as their permanent address on all school and employment records, including military records if they are in the U.S. Armed Forces
3. obtaining a California Driver License or, if they do not drive, a California Identification Card
4. obtaining California vehicle registration
5. paying California income taxes as a resident, including taxes on income earned outside California from the date they establish residence
6. establishing a California residence in which they keep their personal belongings
7. licensing for professional practice in California

Maintaining these indicia in other states during any period for which students claim residence can also serve as an indication of their intent. Documentary evidence is required, and all relevant indications are considered in determining the classification. Intent is questioned if students return to their prior state of residence when UCLA is not in session.

Temporary Absences

If persons are nonresident students who are in the process of establishing a residence for tuition purposes and they return to their former home during noninstructional periods, their presence in the state is presumed to be solely for educational purposes and only convincing evidence to the contrary rebuts this presumption. Students who are in the state solely for educational purposes are not classified as residents for tuition purposes regardless of the length of their stay.

If persons are students who have been classified as residents for tuition purposes and they leave the state temporarily, their absence could result in the loss of their California residence. The burden is on students (or their parents if they are minors) to verify that they did nothing inconsistent with their claim of a continuing California residence during their absence. Steps that students (or their parents) should take to retain a California residence include the following:

1. maintain a domicile in California
2. continue to use a California permanent address in all records—educational, employment, military, etc.
3. continue to satisfy California Resident tax obligations. If a student claims California residence, they are liable for payment of income taxes on their total income from the date they establish their residence in the state, including income earned in another state or country
4. retain California voter registration and vote by absentee ballot
5. maintain a California driver license and vehicle registration. If it is necessary to change the driver license or vehicle registration, the student must change them back within the time prescribed by law

General Rules Applying to Minors

If students are unmarried minors (under age 18), the residence of the parent with whom they live is considered to be their residence. If they have a parent living, they cannot change their residence by their own act, by the appointment of a legal guardian, or by the relinquishment of their parent’s right of control. If students live with neither parent, their residence is that of the parent with whom they last lived. Unless they are minor aliens present in the U.S. under the terms of a nonimmigrant visa that precludes them from establishing a domicile in the U.S., students may establish their own residence when both their parents are deceased and a legal guardian has not been appointed. If they derive California residence from a parent, that parent must satisfy the one-year durational residence requirement.

Specific Rules Applying to Minors

Divorced or Separated Parents

Minor U.S. citizens or eligible aliens may be able to derive California resident status from a California resident parent, if they move to California to live with that parent before their 18th birthday. If they begin residing with their California parent after their 18th birthday, they are treated like any other adult student coming to California to establish residence.

Parent of Minor Moves from California

Students may be entitled to resident status if they are minor U.S. citizens or eligible aliens whose parent(s) was a resident of California who left the state within one year of the residence determination date if they

1. remained in California after their parent(s) departed
2. enroll in a California public postsecondary institution within one year of their parent(s) departure, and
3. once enrolled, maintain continuous attendance in that institution

Financial independence is not required in this case.

Two-Year Care and Control

A minor or 18-year-old student may be entitled to resident classification if, immediately prior to enrolling in a postsecondary institution, they have been living with and been under the continuous direct care and control of an adult or adults other than a parent for a period of no less than two years. The adult or adults having control must have been residents of California during the one year immediately prior to the residence determination date. The classification continues until students have attained the age of 19 and have lived in the state the minimum time necessary to
become a resident, so long as continuous full-time attendance is maintained at a public postsecondary institution.

**Self Support**

If students are U.S. citizens or eligible aliens and are minors who can prove that they lived in California for the entire year immediately before the residence determination date, that they have been self-supporting for that year, and that they intend to make California their permanent home, they may be eligible for resident status.

**Exemptions from Nonresident Supplemental Tuition**

**Member of the U.S. Armed Forces**

Some members of the U.S. Armed Forces may qualify for an exemption from nonresident supplemental tuition based on the federal Higher Education Opportunity Act of 2008. Under this Act, undergraduate and graduate students who are members of the U.S. Armed Forces on active duty for a period of more than 30 days, and whose domicile or permanent duty station is in California, are entitled to an exemption from nonresident supplemental tuition. Students must be continuously enrolled at the University, notwithstanding a subsequent change in their permanent duty station to a location outside of California.

**Special Circumstances**

Members of the U.S. Armed Forces stationed in California are entitled to resident classification unless their assignment to California is for the purpose of attending a state-supported institution of higher education. They must provide the campus residence deputy with a statement from their commanding officer or personnel officer stating that their assignment to active duty in California is not for educational purposes. The letter must include the dates of their assignment to the state.

Students discharged from military service after having been stationed in California on active duty for at least 366 days are entitled to resident classification for the minimum time necessary to establish residence (366 days).

**Spouse or Other Dependents of Military Personnel**

Some dependents of members of the U.S. Armed Forces may qualify for an exemption from nonresident supplemen-tal tuition based on the federal Higher Education Opportunity Act of 2008. Under this Act, undergraduate or graduate students who are the spouse or dependent child of a member of the U.S. Armed Forces on active duty for a period of more than 30 days and whose domicile or permanent duty station is in California, are entitled to an exemption from nonresident supplemental tuition. Students must be continuously enrolled at the University, notwithstanding a subsequent change in the U.S. Armed Forces member’s permanent duty station to a location outside of California.

**California School Attendee (AB 540)**

Under California law AB 540, certain nonresident students are exempt from paying nonresident supplemental tuition. To be eligible, students must have attended three full-time years at a California high school (9th grade included), adult school, and community college, or attained credits/units earned in California from a California high school equivalent to three or more years of full-time high school coursework and attended a combination of elementary, middle, and/or high school (K-12) in California for a total of three or more years; and graduated from a California high school (or attained the equivalent, such as a High School Equivalency Certificate issued by the state of California or a Certificate of Proficiency resulting from the California High School Proficiency Examination), attained an associate’s degree from a California community college, or fulfilled minimum transfer requirements from a California community college to a UC campus. See AB 540 nonresident tuition exemption. Non-immigrant alien students are not eligible for the exemption.

**Child, Spouse, or Registered Domestic Partner of a UC Faculty Member**

To the extent funds are available, if a student is an unmarried dependent child, spouse, or registered domestic partner of a member of the University faculty who is a member of the Academic Senate, they may be eligible for a waiver of nonresident supplemental tuition resident classification. Confirmation of the faculty member’s membership in the
Academic Senate must be secured each term this waiver is granted.

**Child, Spouse, or Registered Domestic Partner of a UC Employee**

Students may be entitled to resident classification if they are a dependent child, spouse, or registered domestic partner of a full-time University of California employee whose assignment is outside California. Their parent’s, spouse’s, or registered domestic partner’s employment status with the University must be ascertained each term.

**Dependent Child of a California Resident**

If students have not been an adult resident of California for more than one year and are the natural or adopted dependent child of a California resident who has been a resident for more than one year immediately prior to the residence determination date, they may be entitled to a resident classification until they have resided in California the minimum time necessary to become a resident, so long as continuous attendance is maintained at an institution.

**Native American Graduate of a Bureau of Indian Affairs High School**

Students who are graduates of a California high school operated by the federal Bureau of Indian Affairs may be entitled to a resident classification.

**Employee of a California Public School District**

Students holding a valid credential authorizing service in the public schools of the State of California who are employed by a school district in a full-time certificate position may be entitled to a resident classification.

**Team USA Amateur Athlete Student**

A Team USA student athlete who trains in California in an elite-level program approved by the U.S. Olympic and Paralympic Committee is eligible for a contingent resident classification for one year, subject to continued eligibility for this provision as defined by California Education Code section 68083. Or, the student is eligible to receive a resident classification based on timely satisfaction of applicable residence requirements. The student should contact Team USA for a letter of eligibility.

**Dependent or Ward of the State of California Child Welfare System**

Notwithstanding any other provisions, students who reside in California and who are currently dependents or wards of the state through the California child welfare system, or were served by the California child welfare system, shall be entitled to a resident classification as long as they remain continuously enrolled.

**Child, Spouse, or Registered Domestic Partner of Deceased Public Law Enforcement or Fire Suppression Employee**

Students may be entitled to a waiver of nonresident supplemental tuition if they are the child, spouse, or registered domestic partner of a deceased public law enforcement or fire suppression employee who was a California resident at the time of their death, and who was killed in the course of fire suppression or law enforcement duties.

**Congressional Medal of Honor Recipients and Their Children**

Students who are recipients of the Congressional Medal of Honor or who are the children of a recipient may be exempt from nonresident supplemental tuition.

**Residence Classification Change**

Students may obtain a Petition for Residence Classification from the Registrar website to request a change of classification from nonresident to resident status. All changes of status must be initiated in advance of the petition filing deadline.

**Time Limit on Submitting Documentation**

If additional documentation is required for residence classification but is not readily accessible, students have until the end of the applicable term to submit it.

**Incorrect Classification**

Students who were incorrectly classified as residents are subject to reclassification as nonresidents and to payment of all nonresident tuition and fees not paid. If students concealed information or furnished false information and were classified incorrectly as a result, they are also subject to University discipline.

**Student Status Change**

Resident students who become nonresidents must immediately notify the residence deputy of their change in status.

**Inquiries and Appeals**

Inquiries regarding residence requirements, determination, and/or recognized exceptions should be directed to the Residence Deputy, UCLA Registrar’s Office, 1113 Murphy Hall, Box 951429, Los Angeles, CA 90095-1429, 310-825-3447. Students are cautioned that this summary is not a complete explanation of the law regarding residence. Note that changes may be made in the residence requirements between the
publication of this statement and the relevant residence determination date.

Grounds for Appeal

Students may appeal a campus nonresident determination to the UC Office of the General Counsel only on the grounds and within the deadline specified:

1. The decision to classify a student as a nonresident for tuition purposes was based on (a) a significant error of fact; (b) a significant procedural error; or (c) an incorrect application of policy that, if corrected, would require that the student be reclassified as a resident.

2. Significant new information became available after the date of the campus decision classifying the student as a nonresident; despite the exercise of reasonable diligence (care and attention), the information was not previously known or available to the student; and based on the new information, classification as a nonresident is incorrect.

No appeals based solely on disagreement with the campus decision are acceptable.

Appeal Deadline

The UC Office of the General Counsel must receive the appeal from the student within 30 days of the date of the campus decision notifying the student of the nonresident classification. Send the completed Application to Appeal and a copy of the nonresident decision by e-mail to the Residency Analyst; fax to 510-987-9757; or mail to Residency Analyst, UC Office of the General Counsel, 1111 Franklin Street, 8th Floor, Oakland, CA 94607-5200. No other University personnel are authorized to supply information relative to residence requirements for tuition purposes.

Privacy Notice

All information requested on the Statement of Legal Residence (SLR) form is required for determining whether or not students are legal residents of California for tuition purposes. Registration cannot be processed without this information. The Registrar’s Office on campus maintains the requested information. University of California policies governing residence for tuition purposes are established by the Regents pursuant to and implemented by regulations established by the president, in consultation with the general counsel (Regents Policy 3105). Students have the right to inspect University records containing the residence information requested on the SLR form.

Regulations

Nondiscrimination

The University of California, in accordance with applicable federal and state laws and University policies, does not discriminate on the basis of race, color, national origin, religion, sex, gender identity, pregnancy (including pregnancy, childbirth, and medical conditions related to pregnancy and childbirth), physical or mental disability, medical condition (cancer-related or genetic characteristics), ancestry, marital status, age, sexual orientation, citizenship, or service in the uniformed services (including membership, application for membership, performance of service, application for service, or obligation for service in the uniformed services). The University also prohibits sexual harassment and harassment on any of the above bases. This nondiscrimination policy covers admission, access, and treatment in University programs and activities.

Students may grieve any action that they believe discriminates against them on the ground of race, color, national or ethnic origin, alienage, sex, religion, age, sexual orientation, gender identity, marital status, veteran status, or perceived membership in any of these categories which results in injuries to the student by contacting the Office of the Dean of Students by e-mail, or in person at 1104 Murphy Hall. Refer to UCLA Procedure 2301 Student Grievances Regarding Violations of Anti-Discrimination Laws or University Policies on Discrimination, also available in 1104 Murphy Hall, for more information.

Inquiries regarding the University student-related nondiscrimination policies may be directed to the Office of the Dean of Students by e-mail, in person at 1104 Murphy Hall, or by phone at 310-825-3871. A staff member is available at this office to support students who need information or assistance in filing a discrimination complaint.

In accordance with applicable federal and state laws and University policy, including Title II of the Americans with Disabilities Act, Section 504 of the Rehabilitation Act of 1973, and University of California policy PACAOS-20 (Policy on Nondiscrimination), UCLA does not discriminate on the basis of physical or mental disability. Retaliation for participation in University procedures relating to complaints of discrimination is also prohibited. This nondiscrimination policy covers admission, access, and treatment in University programs and activities. UCLA is committed to prohibiting disability-based discrimination and harassment, and retaliation, performing a prompt and equitable investigation of complaints alleging discrimination, and properly remedying discrimination when it occurs. Examples of discrimination against students with disabilities include, but are not limited to: failure to engage with the student in a discussion of rea-
soning accommodations; failure to implement approved reasonable accommodations such as the provision of notes or extra time on tests; and exclusion of a qualified student from any course, course of study, or other educational program or activity because of the student’s disability. Disability-based harassment is conduct which is sufficiently severe, pervasive, or persistent so as to interfere with or limit an individual’s ability to participate in or benefit from the services, activities, or opportunities offered by the University.

UCLA has issued Procedure 230.2 Student Grievances Regarding Violations of Anti-Discrimination Laws or University Policies on Discrimination on Basis of Disability. Students may grieve any action that they believe discriminates against them on the basis of disability by contacting the Office of the Dean of Students by e-mail, or in person at 1104 Murphy Hall. Refer to this procedure for more information.

Title IX prohibits sex discrimination, including sexual harassment and sexual violence, in any education program or activity receiving federal financial assistance. Inquiries regarding the application of Title IX may be directed to the Title IX Office, 2255 Murphy Hall, 310-206-3417, or the U.S. Department of Education Office for Civil Rights.

Student Conduct Policies

Students are members of both society and the academic community with attendant rights and responsibilities. Students are expected to make themselves aware of and comply with the law, and with University and campus policies and regulations. While many UCLA policies and regulations parallel federal, state, and local laws, UCLA standards may be set higher. The University of California Policies Applying to Campus Activities, Organizations, and Students have been incorporated into the UCLA Student Conduct Code either by adapting or inserting verbatim the language of the policies. Students may contact the Office of Student Conduct for more information concerning these policies.

Jurisdiction

The University has jurisdiction over student conduct that occurs on University property, or in connection with official University programs or functions whether on or off University property. The University may, at its sole discretion, exercise jurisdiction over student behavior that occurs off campus and would violate student conduct when the alleged misconduct indicates that the student poses a threat to the safety or security of any individual; or it involves academic work or the forgery, alteration, or misuse of any University document, record, key, electronic device, or identification.

In determining whether or not to exercise off-campus jurisdiction, the University may consider factors including but not limited to the seriousness of the alleged misconduct; whether an alleged victim is a member of the campus community; the ability of the University to gather information, including witness statements; and whether the off-campus conduct is part of a series of actions that occurred both on and off campus.

Types of Misconduct

Students may be held accountable for committing or attempting to commit a violation of the UCLA Student Conduct Code or for assisting, facilitating, or participating in the planning of an act that violates this Code (or an act that would be in violation of this Code if it were carried out by a student). Violations include the following types of misconduct:

102.01: Academic Dishonesty. All forms of academic misconduct, including but not limited to cheating, fabrication or falsification, plagiarism, multiple submissions, or facilitating academic misconduct that occurs in academic exercises or submissions.

NOTE: Allegations involving students (paid or unpaid) who were working on externally (including federally) sponsored research projects or supported by externally (including federally) funded research training grants when research misconduct involving their supported work was alleged to have occurred, may be afforded a different procedure if the external sponsor requires a process for responding to allegations of research misconduct that is similar to or based on federal research misconduct regulations. In that case, allegations are managed under UCLA Policy 993 (PDF) Responding to Allegations of Research Misconduct and are forwarded to the Research Integrity Officer (RIO), who then determines whether an inquiry and/or review is warranted. Should a review be conducted, a copy of the investigation committee report and the RIO's written determination of whether or not research misconduct occurred is forwarded to the dean, who may impose one or more sanctions as appropriate. Otherwise, section III of the UCLA Student Conduct Code is the applicable procedure for responding to allegations of fabrication by students. In the event that the RIO determines that the research record needs to be corrected due to a finding that research misconduct occurred, the RIO initiates a correction or retraction as appropriate.

For purposes of the UCLA Student Conduct Code, the following definitions apply:

102.01a: Cheating. Cheating includes, but is not limited to, the use of unauthorized materials (including online sources such as Course Hero, GitHub, or Chegg), information, or study aids in any academic exercise; the alteration of any answers on a graded document before submitting it for
regrading; or the failure to observe the expressed procedures or instructions of an academic exercise (e.g., examination instructions regarding alternate seating or conversation during an examination).

102.01b: Fabrication. Fabrication includes, but is not limited to, falsification or invention of any information or citation in an academic exercise, including fabrication or falsification of research. Fabrication of research is making up data or results and recording or reporting them. Falsification of research is manipulating research materials, equipment, or processes; or changing or omitting data or results such that the research is not accurately represented in the research record.

102.01c: Plagiarism. Plagiarism includes, but is not limited to, the use of another person’s work (including words, ideas, designs, or data), without giving appropriate attribution or citation. This includes, but is not limited to, representing, with or without the intent to deceive, part or all of an entire work obtained by purchase or otherwise, as the student’s original work; the omission of or failure to acknowledge the true source of the work; or representing an altered but identifiable work of another person or the student’s own previous work as if it were the student’s original or new work.

Unless otherwise specified by the faculty member, all submissions, whether in draft or final form, to meet course requirements (including a paper, project, examination, computer program, oral presentation, or other work) must either be the student’s own work, or must clearly acknowledge the source.

102.01d: Multiple Submissions. Multiple submissions includes, but is not limited to, the submission for credit in a UCLA course of any work that has been previously submitted in identical or similar form, at any educational institution, to fulfill the requirements of another course, without the informed permission/consent of the instructor of the UCLA course in which the multiple submission is alleged to have occurred. Multiple submissions also includes the submission of work for credit, in identical or similar form in concurrent courses without the permission/consent of the instructors of both courses.

102.01e: Facilitating Academic Dishonesty. Facilitating academic dishonesty includes, but is not limited to, knowingly helping another student commit an act of academic dishonesty; or publishing assignments, examinations, or solutions without permission of the instructor.

102.01f: Coercion Regarding Grading or Evaluation of Coursework. Threatening personal or professional repercussions or discipline against an instructor to coerce the instructor to change a grade or otherwise evaluate the student’s work by criteria not directly reflective of coursework.

102.01g: Unauthorized Collaboration. Unauthorized collaboration includes working with others without the expressed permission of the instructor on any submission, whether in draft or final form, to meet course requirements (including a paper, project, take-home examination, computer program, oral presentation, or other work). Collaboration between students will be considered unauthorized unless expressly permitted by the instructor.

102.02: Other Forms of Dishonesty. Other forms of dishonesty, including but not limited to fabricating information or knowingly furnishing false information or reporting a false emergency to the University.

102.03: Forgery. Forgery, alteration, or misuse of any University document, record, key, electronic device, or identification, or submission of any forged document or record to the University.

102.04: Theft, Damage, or Destruction of Property.

102.04a: Theft. Theft includes taking without expressed permission or, misappropriation of any property or services of the University or property of others while on University premises or at official University functions; or possession of any property that the student had knowledge or reasonably should have had knowledge was stolen.

102.04b: Damage or Destruction of Property. Damage or destruction of any University property or the property of others while on University premises or at official University functions.

102.05: Computer Misuse.

102.05a: Theft or Abuse of Computers. Theft or abuse of University computers or other University electronic resources such as computer and electronic communications facilities, systems, and services. Abuses include, but are not limited to, unauthorized entry; unauthorized review of personal information of others maintained on University electronic resources; use, transfer, or tampering with the communications of others; use of either software or physical devices to enroll in classes for yourself or on behalf of others using processes other than those specifically delineated by the UCLA Registrar’s Office; interference with the work of others or with the operation of computer or electronic communications facilities, systems, or services; or violation of the University of California Electronic Communications Policy (PDF) or of any other University acceptable or allowable use policies.

102.05b: Violations of Copyright. Violations of copyright laws, whether by theft, unauthorized sharing, or other misuse of copyrighted materials such as music, movies, software, photos, or text.

102.06: Unauthorized Use of University Resources or Name. Unauthorized entry to, possession of, receipt of, or
use of any University services, equipment, resources, or properties, including the University’s name, insignia, or seal. See UCLA Policy 110 (PDF) Use of the University’s Names, Seals, and Trademarks.

102.07: Violations of University Policy. Students may be subject to discipline for violation of any University policy.

102.07a: University Housing. Violations of policy regarding University-owned, operated, or leased housing facilities or other housing facilities on University property.

102.07b: University Parking. Violations of policy regarding University parking services or University-owned or operated parking facilities.

102.07c: University Recreation. Violations of policy regarding University recreation services, programs, or within University-owned or operated recreation facilities.

102.07d: University Identification Card (BruinCard). Violation of policies, regulations, or rules governing use of official University identification cards, including manufacturing or possession of false identification cards, using another person’s BruinCard to obtain services or establish identity, facilitating the misuse of one’s BruinCard by another person to obtain services or establish identity, or other misuse of the BruinCard.

102.07e: Unmanned Aircraft Systems. Operation of a drone or other unmanned aircraft system in the airspace above the campus is only permissible with the express written permission of the University of California Unmanned Aircraft Systems Safety Office.

102.07f: Workplace Violence. Violations of policy regarding workplace violence, including violating the terms of a restraining order or court order. See UCLA Policy 132 (PDF) Workplace Violence Prevention.

102.08: Conduct that Threatens Health or Safety. Conduct that threatens the health or safety of any person, including but not limited to, physical assault, threats that cause a person reasonably to be in sustained fear for one’s own safety or the safety of one’s immediate family, incidents involving the use or display of a weapon likely to cause great bodily harm, and intoxication or impairment through the use of alcohol or controlled substances to the point one is unable to exercise care for one’s own safety; or other conduct that threatens the health or safety of any person.

As described in section IV of the Code, before a final determination of alleged misconduct is made, an interim suspension or interim exclusion may be imposed by the dean when there is reasonable cause to believe that the student’s participation in University activities or presence at specified areas of campus will lead to physical abuse, threats of violence, or conduct that threatens the health or safety of any person on University property or at official University functions; or other disruptive activity incompatible with the orderly operation of the campus.

Incidents involving allegations of sexual violence and sexual harassment (including domestic violence, dating violence, and sexual assault), are reviewed initially by the Title IX Office pursuant to the UC Policy on Sexual Violence and Sexual Harassment (PDF) and any local procedures currently in effect. Where the Title IX Office determines that it does not have jurisdiction over an allegation, the Office of Student Conduct may review the matter to determine if the Code applies.

102.09: Sexual Harassment. Sexual Harassment is defined in the UC Policy on Sexual Violence and Sexual Harassment (PDF). Incidents involving allegations of sexual violence and sexual harassment (including domestic violence, dating violence, and sexual assault), are reviewed initially by the Title IX Office pursuant to this policy and any local procedures currently in effect. Where the Title IX Office determines that it does not have jurisdiction over an allegation, the Office of Student Conduct may review the matter to determine if the Code applies.

102.10: Stalking. Stalking is behavior in which a student repeatedly engages in a course of conduct directed at another person and makes a credible threat with the intent to place that person in reasonable fear for their safety, or the safety of their family, where the threat is reasonably determined by the University to seriously alarm, torment, or terrorize the person, and where the threat is additionally determined by the University to serve no legitimate purpose.

The Code prohibits retaliation against a person who reports stalking, assists someone with a report of stalking, or participates in any manner in a review or resolution of a stalking report. Retaliation includes threats, intimidation, reprisals, and/or adverse actions related to employment or education.

For stalking violations of a sexual nature, see also the UC Policy on Sexual Violence and Sexual Harassment (PDF). Incidents involving allegations of sexual violence and sexual harassment (including domestic violence, dating violence, and sexual assault), are reviewed initially by the Title IX Office pursuant to this policy and any local procedures currently in effect. Where the Title IX Office determines that it does not have jurisdiction over an allegation, the Office of Student Conduct may review the matter to determine if the Code applies.

102.11: Discrimination and Harassment.

102.11a: Discrimination. Discrimination means the exclusion of an individual on the basis of race, color, national origin, religion, sex, gender, gender expression, gender identity, gender transition status, pregnancy, physical or mental disability, medical condition (cancer-related or...
102.15: Disturbing the Peace. Participation in a disturbance of the peace or unlawful assembly. Sanctions may be enhanced where an individual was selected for harassment because of the individual’s race, color, national or ethnic origin, citizenship, sex, gender, gender expression, religion, age, sexual orientation, gender identity, pregnancy, marital status, ancestry, service in the uniformed services, physical or mental disability, medical condition, or perceived membership in any of these classifications.

For violations involving sexual harassment and sexual violence (including domestic violence, dating violence, and sexual assault), see instead the UC Policy on Sexual Violence and Sexual Harassment (PDF) and any local procedures currently in effect.

102.12: Hazing. Participating in, engaging in, or supporting hazing or any method of initiation or preinitiation into a campus organization or team, or other activity engaged in by the organization or members of the organization at any time that causes, or is likely to cause, physical injury or personal degradation or disgrace resulting in psychological harm to any student or other person, regardless of location, intent, or consent of participants. See the UCLA Hazing web page.

102.13: Obstruction or Disruption. Obstruction or disruption of teaching, research, administration, disciplinary procedures, or other University activities.

102.14: Disorderly Behavior. Engaging in disorderly or lewd conduct.

102.15: Disturbing the Peace. Participation in a disturbance of the peace or unlawful assembly.

102.16: Failure to Comply. Failure to identify oneself to, or comply with directions of, a University official or other public official acting in the performance of their duties while on University property or at official University functions; or resisting or obstructing such University or other public officials in the performance of or the attempt to perform their duties.

102.17: Controlled Substances. Manufacture, distribution, dispensing, possession, use, or sale of, or the attempted manufacture, distribution, dispensing, or sale of controlled substances (including medicinal marijuana), identified in federal or state law or regulation, which is unlawful or otherwise prohibited by, or not in compliance with, any University policy or campus regulations or being unable to exercise care for one’s own safety because one is under the influence of controlled substances. NOTE: This provision shall not apply to circumstances wherein the person under the influence was given a controlled substance without their knowledge and permission.

102.18: Alcohol. Manufacture, distribution, dispensing, possession, use, or sale of, or the attempted manufacture, distribution, dispensing, or sale of alcohol which is unlawful or otherwise prohibited by, or not in compliance with, University policy or campus regulations; or being unable to exercise care for one’s own safety because one is under the influence of alcohol. NOTE: This provision shall not apply to circumstances wherein the person under the influence was given alcohol without their knowledge and permission.

102.19: Destructive Devices. Possession, use, storage, or manufacture of explosives, firebombs, or other destructive devices.

102.20: Weapons and Replica Weapons.

102.20a: Weapons. Except as expressly permitted by law, possession, use, storage, or manufacture of a firearm or other weapon capable of causing bodily injury is prohibited.

102.20b: Replica Weapons. Except as expressly permitted by UCPD policy, possession, use, storage, or manufacture of replicas of firearms or other weapons is prohibited. See UCLA Policy 131 (PDF) Weapons on Campus.

102.21: Violation of Disciplinary Conditions. Violation of the conditions contained in the terms of a disciplinary action imposed under the UCLA Student Conduct Code.

102.22: Violation of Interim or Emergency Suspension Conditions. Violation of the conditions contained in a notice of Interim Suspension, Interim Exclusion, or Emergency Suspension issued pursuant to section IV of the UCLA Student Conduct Code.

102.23: Unauthorized Use or Sale of University Materials. Except as provided herein, no student will give, sell, or otherwise distribute to others or publish any recording made during any course presentation without the written consent of the University and the instructor/presenter. This policy is applicable to any recording in any medium, including handwritten or typed notes.

Any distribution of a recording of a course presentation at UCLA that captures the actual sounds and/or images of that course presentation, in any medium, must consider not only the rights of the instructor and the University, but also those of other parties. Examples include the privacy rights
of students enrolled in the course, the rights of guest lecturers, and the copyright interests in materials authored by others that are displayed or presented during the course presentation. In addition to the consent of the University and the instructor/presenter, it may be necessary to secure permission from these other parties before any recording, distribution, publication, or communication is legally permitted.

102.23a: Selling Academic Materials. Selling, preparing, or distributing for any commercial purpose academic materials, including but not limited to written, video, or audio recordings of any course, or course materials, unless authorized by the University in advance and explicitly permitted by the course instructor in writing. The unauthorized sale or commercial distribution of academic materials, including but not limited to recordings, by a student is a violation of the UCLA Student Conduct Code whether or not it was the student or someone else who prepared the materials. This policy is applicable to any recording in any medium, including handwritten or typed notes.

102.23b: Copying Course Notes. Copying for any commercial purpose handouts, readers, or other course materials provided by an instructor as part of a University of California course unless authorized by the University in advance and explicitly permitted by the course instructor or the copyright holder in writing (if the instructor is not the copyright holder). Students currently enrolled in a course may provide a copy of their own notes or recordings to other currently enrolled students for noncommercial purposes reasonably arising from participation in the course, including individual or group study.

102.23c: Commencement Tickets. Selling commencement tickets.

102.24: Misuse of University Property. Organizing or carrying out unlawful activity on University property.

102.25: Violations of Law. Students may be subject to discipline on the basis of a conviction under any federal, California state, or local criminal law, when the conviction constitutes reasonable cause to believe that the student poses a threat to the health or safety of any person, or to the security of any property, on University premises or at official University functions, or to the orderly operation of the campus.

When the conviction also represents a violation of section(s) 102.08, 102.09, and/or 102.10 involving sexual harassment and sexual violence (including domestic violence, dating violence, sexual assault and stalking), the Title IX Office will review the matter pursuant to the UC Policy on Sexual Violence and Sexual Harassment (PDF), any related appendices, and any local procedures currently in effect. Where the Title IX Office determines that it does not have jurisdiction over an allegation, the Office of Student Conduct may review the incident(s) to determine if the Code applies.

102.26: Terrorizing Conduct. Conduct where the actor means to communicate a serious expression of intent to terrorize, or acts in reckless disregard of the risk of terrorizing, one or more University students, faculty, or staff. Terrorize means to cause a reasonable person to fear bodily harm or death, perpetrated by the actor or those acting under their control. Reckless disregard means consciously disregarding a substantial risk. This section applies without regard to whether the conduct is motivated by race, ethnicity, personal animosity, or other reasons. This section does not apply to conduct that constitutes the lawful defense of oneself, of another, or of property.

102.27: Unwanted Personal Contact. Contact (whether physical, verbal, written, face-to-face, telephonic, electronic, or by other means) that (1) a student knows or should know is unwanted; (2) is communicated directly to one or more specific students, student group, faculty, or staff; (3) constitutes severe and/or pervasive, and objectively offensive, conduct; and (4) does not constitute speech protected by the First Amendment to the U.S. Constitution (e.g., speech in a public forum on a matter of public concern).

102.28: Expectation of Privacy. The following is prohibited:

Making a video recording, audio recording, taking one or more photographs, or streaming audio/video of any person in a location where the person has a reasonable expectation of privacy, without that person’s knowledge and express consent; or posting online any audio/video/photograph made by another individual of any person in a location where the person had a reasonable expectation of privacy, without that person’s knowledge and express consent.

Making a video recording, audio recording, or streaming audio/video of private nonpublic conversations and/or meetings, without the knowledge and express consent of all recorded parties; or posting online any audio/video/photographs made by another individual of any private, nonpublic conversations and/or meetings, without the knowledge and express consent of all recorded parties.

Looking through a hole or opening, into, or otherwise viewing, by means of any instrumentality, the interior of a private location without the subject’s knowledge and express consent.

Express consent is clear, unmistakable, and voluntary consent that may be in written, oral, or nonverbal form.

Private locations are settings where the person reasonably expected privacy. For example, in most cases the following are considered private locations: residential living quarters, bathrooms, locker rooms, and personal offices.
Private nonpublic conversations and/or meetings include any communication carried on in circumstances that reasonably indicate that any party wants the communication to be confined to the parties, but excludes a communication made in a public gathering, or in any other circumstance in which the parties to the communication may reasonably expect that the communication may be overheard or recorded.

These provisions do not extend to public events or discussions, nor to lawful official law or policy enforcement activities. These provisions may not be utilized to impinge on the lawful exercise of constitutionally protected rights of freedom of speech or assembly.

For incidents involving allegations of conduct prohibited by the UC Policy on Sexual Violence and Sexual Harassment (PDF) (including invasions of sexual privacy), the Title IX Office will review the matter pursuant to this policy, any related appendixes, and any local procedures currently in effect. Where the Title IX Office determines that it does not have jurisdiction over an allegation, the Office of Student Conduct may review the incident(s) to determine if the Code applies.

**Sexual Assault and Other Sexual Violence**

UCLA does not tolerate sexual violence and responds to all reports of sexual violence in accordance with UCLA procedures and the UC Policy on Sexual Violence and Sexual Harassment (PDF). Sanctions for a student found responsible for committing sexual assault or other sexual violence may include dismissal from the University. See the Title IX policies and rights web page.

**If a Person Has Been Sexually Assaulted**

Those who believe that they are the victims of sexual assault can

1. **immediately call the police department.** If possible, call the UCLA Police Department at 310-825-1491 or 911.
2. **get medical attention.** Campus police will provide transportation to the Rape Treatment Center at Santa Monica-UCLA Medical Center for medical treatment and evidence collection. A confidential counselor from the Rape Treatment Center will be available at that time, free of charge.
3. **report to Title IX.** Students have the right to report to the University, and can do that by contacting the Title IX Office by e-mail or by calling 310-206-3417. If the other person is a student or employee, the office can take administrative action, and explain those options. The Title IX Office also offers interim measures to prevent individuals from experiencing additional harm. Those measures can include, but are not limited to, academic accommodations, no-contact directives prohibiting contact, and housing transfers.

Utilize confidential campus and community support services

1. **contact a Campus Assault Resources and Education (CARE) advocate.** CARE Advocates are available to support and advocate for UCLA victims or survivors. They can discuss options and alternatives, help identify the most appropriate support services, and provide information about medical care, psychological counseling, academic assistance, legal options, how to file a police report, and how to file a complaint with the Title IX Office. CARE advocates are available to assist any member of the UCLA community regardless of where or when the assault occurred. For assistance, contact CARE at 310-206-2465 or go to 205 Covel Commons and ask to speak to a CARE advocate.
2. **contact the Rape Treatment Center** at Santa Monica-UCLA Medical Center (424-259-7208) for free emergency medical treatment and counseling services.

Assistance is available for persons who have been subjected to sexual violence. They are encouraged in the strongest terms to make a report to the Title IX Office.

**Harassment**

**Sexual Harassment**

The University of California is committed to creating and maintaining a community where all persons who participate in University programs and activities can work and learn together in an atmosphere free from all forms of harassment, exploitation, or intimidation. Every member of the University community should be aware that the University is strongly opposed to sexual harassment and that such behavior is prohibited both by law and by the UC Policy on Sexual Violence and Sexual Harassment (PDF) (hereafter referred to as the SVSH Policy). The University will respond promptly and effectively to reports of sexual harassment and will take appropriate action to prevent, correct and, if necessary, discipline behavior that violates the SVSH Policy. See the Title IX sexual harassment prevention website.

**Definitions**

For detailed definitions of sexual harassment, refer to the SVSH Policy.
Complaint Resolution

An individual who believes that they have been sexually harassed may contact Title IX Director Mohammed Cato, 2255 Murphy Hall, 310-206-3417. If a student reports sexual harassment or sexual violence to a responsible employee, as defined under the SVSH Policy, the responsible employee must report it to the Title IX Office. Responsible employees include academic personnel, faculty members, and most other employees who are not defined as a confidential resource under the SVSH Policy.

Title IX prohibits sex discrimination, including sexual harassment and sexual violence, in any education program or activity receiving federal financial assistance. Inquiries regarding Title IX may be directed to the Title IX Office by e-mail, or at 2255 Murphy Hall, 310-206-3417; or the U.S. Department of Education Office for Civil Rights.

Other Forms of Harassment

The University strives to create an environment that fosters the values of mutual respect and tolerance and is free from discrimination based on race, ethnicity, sex, religion, sexual orientation, disability, age, and other personal characteristics. Certainly harassment, in its many forms, works against those values and often corrodes a person's sense of worth and interferes with one's ability to participate in University programs or activities. While the University is committed to the free exchange of ideas and the full protection of free expression, the University also recognizes that words can be used in such a way that they no longer express an idea, but rather injure and intimidate, thus undermining the ability of individuals to participate in the University community. The University of California Policies Applying to Campus Activities, Organizations, and Students (PDF) (hereafter referred to as Policies) presently prohibit a variety of conduct by students which, in certain contexts, may be regarded as harassment or intimidation.

For example, harassing expression which is accompanied by physical abuse, threats of violence, or conduct that threatens the health or safety of any person on University property or in connection with official University functions may subject an offending student to University discipline under the provisions of the Policies.

Similarly, harassing conduct, including symbolic expression, which also involves conduct resulting in damage to or destruction of any property of the University or property of others while on University premises may subject a student to University discipline under the provisions of Section 102.04 of the Policies.

Further, under specific circumstances described in Section 102.11 of the Policies, students may be subject to University discipline for misconduct which may consist solely of expression. Copies of these Policies are available in the Office of Student Conduct, 1104 Murphy Hall.

Complaint Resolution

One of the necessary measures in our efforts to assure an atmosphere of civility and mutual respect is the establishment of procedures which provide effective informal and formal mechanisms for those who believe that they have been victims of any of the above misconduct.

Many incidents of harassment and intimidation can be effectively resolved through informal means. For example, an individual may wish to confront the alleged offender immediately and firmly. An individual who chooses not to confront the alleged offender and who wishes help, advice, or information is urged to contact the Office of Student Conduct.

In addition to providing support for those who believe they have been victims of harassment, the Office of Student Conduct can help students to consider which of the available options is the most useful for the particular circumstances.

With regard to the Universitywide Student Conduct Harassment Policy, complainants should be aware that not all conduct which is offensive may be regarded as a violation of this policy and may, in fact, be protected expression. Thus, the application of formal institutional discipline to such protected expression may not be legally permissible. Nevertheless, the University is committed to reviewing any complaint of harassing or intimidating conduct by a student and intervening on behalf of the complainant to the extent possible.

Faculty Conduct Policies

The complete Faculty Code of Conduct (Code), part of the University of California Academic Personnel Manual, is available in APM 015 (PDF). A portion of the Code outlines faculty obligations to students.

Faculty Code of Conduct

Ethical Principles

As teachers, the professors encourage the free pursuit of learning of their students. They hold before them the best scholarly standards of their discipline. Professors demonstrate respect for students as individuals and adhere to their proper roles as intellectual guides and counselors. Professors make every reasonable effort to foster honest academic conduct and to assure that their evaluations of students reflect each student’s true merit. They respect the confidential nature of the relationship between professor and student. They avoid any exploitation, harassment, or discriminatory
treatment of students. They acknowledge significant academic and scholarly assistance from them. They protect their academic freedom.

—1966 AAUP statement, revised 1987

The integrity of the faculty-student relationship is the foundation of the University’s educational mission. This relationship vests considerable trust in the faculty member, who, in turn, bears authority and accountability as mentor, educator, and evaluator. The unequal institutional power inherent in this relationship heightens the vulnerability of the student and the potential for coercion. The pedagogical relationship between faculty member and student must be protected from influences or activities that can interfere with learning consistent with the goals and ideals of the University. Whenever a faculty member is responsible for academic supervision of a student, a personal relationship between them of a romantic or sexual nature, even if consensual, is inappropriate. Any such relationship jeopardizes the integrity of the educational process.

In this section, the term student refers to all individuals under the academic supervision of faculty.

Types of Unacceptable Conduct

Failure to meet the responsibilities of instruction, including

1. arbitrary denial of access to instruction
2. significant intrusion of material unrelated to the course
3. significant failure to adhere, without legitimate reason, to the rules of the faculty in the conduct of courses, to meet class, to keep office hours, or to hold examinations as scheduled
4. evaluation of student work by criteria not directly reflective of course performance
5. undue and unexcused delay in evaluating student work

Discrimination, including harassment, against a student on political grounds or for reasons of race, color, religion, sex, sexual orientation, gender, gender expression, gender identity, ethnic origin, national origin, ancestry, marital status, pregnancy, physical or mental disability, medical condition (cancer-related or genetic characteristics), genetic information (including family medical history), or service in the uniformed services as defined by the Uniformed Services Employment and Reemployment Rights Act of 1994 (USERRA), as well as state military and naval service, or within the limits imposed by law or University regulations, because of age or citizenship or for other arbitrary or personal reasons.

Sexual violence and sexual harassment, as defined by University policy, of a student.

Violation of University policy, including the pertinent guidelines, applying to nondiscrimination against students on the basis of disability.

Use of the position or powers of a faculty member to coerce the judgment or conscience of a student or to cause harm to a student for arbitrary or personal reasons.

Participating in or deliberately abetting disruption, interference, or intimidation in the classroom.

Entering into a romantic or sexual relationship with any student for whom a faculty member has, or should reasonably expect to have in the future, academic responsibility (instructional, evaluative, or supervisory). A faculty member should reasonably expect to have in the future academic responsibility (instructional, evaluative, or supervisory) for (1) students whose academic program will require them to enroll in a course taught by the faculty member; (2) students known to the faculty member to have an interest in an academic area within the faculty member’s academic expertise; or (3) any student for whom a faculty member must have academic responsibility (instructional, evaluative, or supervisory) in the pursuit of a degree.

Exercising academic responsibility (instructional, evaluative, or supervisory) for any student with whom a faculty member has a romantic or sexual relationship.

Charges of Violation

If a student has reason to believe that a faculty member has violated the Faculty Code of Conduct, the student has several options. The student may report the alleged violator to the chair of the department or to the dean of the division or school, seek mediation with the Office of Ombuds Services, or seek advice from the Senate’s Grievance Advisory Committee. If the alleged violation involves grading or other student evaluation, the student may file a grading grievance. If the violation involves sexual harassment, sexual violence, or discrimination, the violation should be reported to the Civil Rights Office. If the student feels that formal discipline may be warranted, the student may so inform the chair of the department, or the dean of the division or school, or may file a charge themselves with the Academic Senate Charges Committee. If the student seeks remedies based on the alleged violations, the student should work with the Office of the Dean of Students.

Disclosure of Student Records

Pursuant to the Federal Family Educational Rights and Privacy Act (FERPA), the California Information Practices Act, and the University of California Policies Applying to the Disclosure of Information from Student Records, students at UCLA have the right to
1. inspect and review records pertaining to themselves in their capacity as students, except as the right may be waived or qualified under federal and state laws and University policies

2. have withheld from disclosure, absent their prior written consent for release, personally identifiable information from their student records, except as provided by federal and state laws and University policies

3. inspect records maintained by UCLA of disclosures of personally identifiable information from their student records

4. seek correction of their student records through a request to amend the records or, if such request is denied, through a hearing

5. file complaints with the U.S. Department of Education regarding alleged violations of the rights accorded them by FERPA

UCLA, in accordance with federal and state laws and University policies, has designated the following categories of personally identifiable information as public information that UCLA may release and publish without the student’s prior consent: name, e-mail address, telephone numbers, major field of study, dates of attendance, number of course units in which enrolled, degrees and honors received, the most recent previous educational institution attended, participation in officially recognized activities (including intercollegiate athletics), and the name, weight, and height of participants on intercollegiate athletic teams.

As a matter of practice, UCLA does not publish student telephone numbers in the campus online directory unless released by the student. The term public information in this policy is synonymous with the term directory information in FERPA.

Students who do not wish certain items (i.e., name, e-mail address, telephone numbers, major field of study, dates of attendance, number of course units in which enrolled, and degrees and honors received) of this public information released and published may so indicate through MyUCLA. To restrict the release and publication of additional items in the category of public information, complete the UCLA FERPA Restriction Request form available from the Registrar’s Office, 1113 Murphy Hall.

Student records that are the subject of federal and state laws and University policies may be maintained in a variety of offices, including the Registrar’s Office, Office of Student Conduct, Career Center, Division of Graduate Education, External Affairs Department, and offices of a student’s College or school and major department. Students are referred to the online UCLA Campus Directory, which lists all the offices that may maintain student records, together with each office campus address and telephone number. Students have the right to inspect their student records in any such office, subject to the terms of federal and state laws and University policies. Inspection of student records maintained by the Registrar’s Office is by appointment only and must be arranged three working days in advance. Call 310-825-1091, option 6; or inquire at the Registrar’s Office, 1113 Murphy Hall.

A copy of applicable federal and state laws and University policies may be requested from the Information Practices office by e-mail, or by calling 310-794-8741. Information concerning student hearing rights may be obtained from that office, and from the Office of Student Conduct, 1206 Murphy Hall.
College and Schools

The UCLA campus is home to one College and 12 professional schools. Each has its own degree requirements, and each division and school is headed by a dean who has final academic authority. Students enroll in UCLA and in the College or one of the schools described in this chapter.

College of Letters and Science

Adriana Galván, PhD, Dean of Undergraduate Education
Miguel A. García-Garibay, PhD, Senior Dean and Dean of Physical Sciences
Tracy L. Johnson, PhD, Dean of Life Sciences
Alexandra Minna Stern, PhD, Dean of Humanities
Abel Valenzuela, Jr., PhD, Dean of Social Sciences (Interim)

College of Letters and Science
2300 Murphy Hall
310-825-9009

UCLA is one of the world’s premier universities. At the core of UCLA research programs, graduate training, and undergraduate instruction is the College of Letters and Science. With over 28,600 students and more than 900 faculty members, the College is the largest academic unit in the UC system and the academic heart of UCLA.

The undergraduate programs in the College stress a liberal arts education that brings together perspectives from many fields in a unified approach to learning. Students learn ways that issues are analyzed, questions are posed, and knowledge is organized. After sampling many general subjects, they concentrate on one field or subject and are required to pursue it rigorously and in depth, according to the standards of scholars in the field. When they reach the graduate level, they pose their own questions, analyze academic issues of their own making and, through their research, participate in the creation of knowledge.

Organization of the College

The College of Letters and Science is organized in five divisions, each led by a dean.

Humanities Division

The Humanities Division promotes—through scholarly inquiry and the transmission of ideas—sensitive, imaginative, and rigorous reflection on the human condition. Courses in literature help students understand the enduring power of texts both great and small—from cuneiform to manuscript to hypertext. Studies of nearly 100 foreign languages create a gateway to civilizations that span the globe and five millennia of human history. Philosophers offer training in the fundamental principles of logic and moral reasoning, and linguists—both theoretical and applied—illuminate the physiological, cognitive, and social aspects of human language. Art historians explore with students the forms and media through which humans have sought to express themselves and to challenge and make sense of their worlds. Programs in the humanities teach students to interpret texts with an informed sensitivity, to evaluate ideas critically, to write clearly and effectively about them, and to be able to question and discuss them with their peers.

Life Sciences Division

Faculty members and students in the Life Sciences Division play an essential role in unlocking the basic mechanisms of life at the most fundamental level. The geography of Southern California is conducive to life sciences research, since the diverse region is a natural laboratory for environmental biologists, plant and animal ecologists, and evolutionary biologists. Scientists in microbiology and molecular, cell, and developmental biology study embryo formation, cell signaling, and genetics. Neurochemists, neurophysiologists, psychobiologists, and behavior biologists study the underlying mechanisms of the neural basis of behavior. Physiological scientists examine the structure of muscle, hormonal control of behavior, and environmental conditions, such as weightlessness, that affect bone and muscle structure and function. Cognitive psychologists are concerned with the nature of knowledge—how people learn, remember, associate, and think; and how computers relate to human thought processes.

Physical Sciences Division

Departments in the Physical Sciences Division present the results of human efforts to understand the natural sciences and their physical aspects, including the properties and characteristics of matter and energy; the science of numbers and order; the origin and structure of the universe, solar system, and Earth; and climatic change and its environmental impact. The bases for the physical sciences are the fundamental laws and proof of mathematics, chemistry, and physics. Studies in the physical sciences are experimental, theoretical, observational, and computational. Faculty members and students are interested in such topics as the nature and evolution of the galaxies; ozone depletion; nuclear winter; greenhouse effect; molecular recognition, interactions, design, synthesis, and structure; evolution of
life and the continents; computational mathematics and symbolic logic; superconducting materials; plasma fusion, space plasmas; and high-energy accelerator physics.

Social Sciences Division
Majors in the Social Sciences Division help students make sense of the rapidly changing world around them by giving them the tools and sensibilities to appreciate the complex interplay of individuals, environment, culture, and economy that makes up their social world. They study human and animal evolution, as well as the transformation of human societies from small groups to states. They explore and debate the meaning of cultural, ethnic, and racial identities in historical and contemporary settings. Some majors challenge students to analyze the role of labor, markets, and exchange, as well as the dynamics of political choices, participation, and institutions. Communication, from interpersonal conversation to mass media, and its impact on personal and political behavior are studied in different fields, while the impact of place and the natural environment are examined through geography. Underlying all of these topics is a drive to capture the elusive nature of human behaviors and relationships through direct observation and the questioning of prevailing theories. In addition, students learn exciting and diverse methods of social and environmental analysis, such as archaeology, linguistics, statistics, game theory, remote sensing and imagery, textual analysis, ethnography, geographic information systems, fieldwork, and ecology.

Undergraduate Education Division
The Undergraduate Education Division is a campuswide advocate for undergraduate education, promoting academic success for the diverse undergraduate population at UCLA and ensuring options for all students to engage in a challenging array of educational opportunities, from foundational general education courses to advanced research and capstone projects.

Academic Advancement Program
The Academic Advancement Program (AAP) is a multicultural, multietnic, and multicultural program that promotes academic excellence through academic counseling, learning sessions, and mentoring. Students are eligible for AAP if their academic profiles and personal backgrounds may impact their experience and their retention and graduation from UCLA.

Center for Academic Advising in the College
The Center for Academic Advising in the College (CAAC) encompasses programs and initiatives that foster student and staff development. CAAC partners with students to engage them in their undergraduate careers and to support their personal, professional, and academic growth; while also advising them on academic regulations and procedures, course selection, preparation for graduate and professional programs, selection of appropriate majors, and the options and alternatives available to enhance a UCLA education.

Center for Community Engagement
The Center for Community Engagement serves faculty members, undergraduate students, and community partners through academic courses and programs, including credit-bearing internships, community-engaged learning courses, community-based research, AmeriCorps programs, and the Astin Community Scholars Program. It is home to the undergraduate minor in Community Engagement and Social Change.

Center for Educational Assessment
The Center for Educational Assessment (CEA) supplies information and analysis to support planning, program and policy development, and other decision making about undergraduate education at UCLA.

Center for Scholarships and Scholar Enrichment
The Center for Scholarships and Scholar Enrichment (CSSE) is designed to help students in the search for private scholarships, regardless of financial aid eligibility. The center also houses the Phi Beta Kappa office.

Center for the Advancement of Teaching
The Center for the Advancement of Teaching (CAT) supports undergraduate education by enhancing teaching and learning opportunities. Through grants, programs, and services, CAT promotes the effective use of current and emerging instructional methodologies and technologies.

Honors Programs
Honors Programs offers academic programs and services designed to promote an outstanding honors education, including College Honors, Honors Collegium, Departmental Scholar Program, Individual Majors Program, Honors Scholarships, Honors Research Stipends, and specialized counseling and support services for College honors students.

New Student Academic Programs
New Student Sessions are the first introduction to UCLA for new students. During the three-day, first-year student sessions—and the one-day transfer student sessions—a unique set of comprehensive and engaging programs is offered to make student transitions to UCLA great ones.
Transfer Alliance Program
The Transfer Alliance Program (TAP) seeks to strengthen academic ties between UCLA and honors programs in over 45 California community colleges, offering specialized transfer programs for participating students.

Undergraduate Education Initiatives
Undergraduate Education Initiatives are innovative programs designed for undergraduate students that feature best practices in undergraduate education and attract the most distinguished faculty members from all UCLA areas. Programs include UCLA General Education, Fiat Lux Freshman Seminar Program, Cluster Program, Undergraduate Student Initiated Education Program, and Writing II Program.

Undergraduate Research Centers
Undergraduate Research Centers (URC)—one for students in the arts, humanities, social sciences, and behavioral sciences; and one for students in science, engineering, and mathematics—exist as part of a continuing effort by the College to engage undergraduate students in research and creative activities at all levels.

Degrees
The College offers 139 majors leading to bachelor’s, master’s, and doctorate degrees. In addition, the College offers 86 undergraduate minors.

For a complete list of College of Letters and Science degrees, see Majors and Degrees.

Undergraduate Degree Requirements
Degree programs in the College offer students a variety of intellectual challenges by combining a wide distribution of courses and the opportunity to specialize in one particular field. To this end, students are required to select lower-division courses that furnish general foundations of human knowledge. In upper-division courses, they concentrate on one major field of interest.

As described below, College students must satisfy UC requirements, College requirements, and department requirements for the Bachelor of Arts or Bachelor of Science degree.

University Requirements
The University of California has two requirements that undergraduate students must satisfy to graduate: Entry-Level Writing or English as a Second Language, and American History and Institutions. Students who do not satisfy the Entry-Level Writing requirement prior to enrollment must pass an approved course or other program prescribed by their UC campus of residence. Only after satisfying the Entry-Level Writing requirement can they take an English composition course for transfer credit after enrolling at UCLA. See Degree Requirements in Undergraduate Study for details.

College Requirements
There are eight requirements that must be satisfied for award of a degree.

Unit Requirement
Students must satisfactorily complete for credit a minimum of 180 units for the bachelor’s degree. At least 60 of the 180 units must be upper-division courses numbered 100 through 199. A maximum of 216 units may be permitted. Advanced Placement Examination and International Baccalaureate Examination (transfer) credits are not counted toward the unit maximum.

Scholarship Requirement
Students must earn at least a 2.0 (C) grade-point average (GPA) in all courses undertaken at UCLA to receive a bachelor’s degree. Students must also earn a 2.0 GPA in a major
and satisfy both the course and scholarship requirements for that major, including preparation for the major. Some majors have additional requirements.

**Academic Residence Requirement**

Thirty-five of the final 45 units completed for the bachelor’s degree must be earned while in residence at the College. A minimum of 24 upper-division units must be completed in the major while in residence at the College. The academic residence requirements apply to both continuing and transfer students.

**Writing Requirement**

Students must complete the UC Entry-Level Writing or English as a Second Language (ESL) requirement prior to completing the College writing requirement.

Students admitted to the College are required to complete a two-term writing requirement—Writing I and Writing II. Two courses in English composition are required for graduation. Both courses must be taken for letter grades, and students must receive a C or better grade in each (a C– grade is not acceptable).

**Writing I**

The Writing I requirement must be satisfied within the first three terms of enrollment by completing English Composition 3, 3D, 3DX, 3E, or 3SL with a C or better grade (a C– or Passed grade is not acceptable).

The Writing I requirement may also be satisfied by scoring 4 or 5 on one of the College Board Advanced Placement Examinations in English; completing a course equivalent to English Composition 3 with a C or better grade (a C– or Passed grade is not acceptable) taken at another institution; or scoring 5, 6, or 7 on an International Baccalaureate Higher Level Examination.

Students whose native language is not English may need to take English Composition 1A, 1B, and 2I before enrolling in a Writing I course. All courses in the sequence must be passed with a C or better grade (a C– or Passed grade is not acceptable).

Qualifying examination scores and courses are determined by the College Faculty Executive Committee.

**Writing II**

The Writing II requirement must be satisfied within seven terms of enrollment by completing one course from a list of **Writing II courses** approved by the College Faculty Executive Committee; see the Registrar’s **Writing II requirement** web page for details. Courses that satisfy the requirement are denoted by a W suffix and are impacted. The course must be completed with a C or better grade (a C– or Passed grade is not acceptable).

Applicable Writing II courses may also fulfill preparation for the major requirements and, if approved for general education (GE) or diversity credit, may also fulfill a GE or diversity requirement.

Transfer students with 90 or more units who have completed the Intersegmental General Education Transfer Curriculum (IGETC) will have satisfied the Writing I, Writing II, and reciprocity requirements. No transfer student is admitted to the College without completing, with a C or better grade (a C– grade is not acceptable), a college-level writing course that Undergraduate Admission accepts as equivalent to English Composition 3.

**Quantitative Reasoning Requirement**

The quantitative reasoning requirement may be satisfied by completing one approved UCLA course (see list below) or an equivalent course within the first seven terms of enrollment. The course must be taken for a letter grade, and students must receive a C or better grade (a C– grade is not acceptable).

The requirement may also be satisfied by achieving an SAT Reasoning Test Mathematics Section score of 600 or better for exams taken January 2016 or earlier, or achieving an SAT Mathematics section score of 620 or better for exams taken March 2016 or later, or an SAT Subject Test in Mathematics score of 550 or better, or an ACT mathematics exam score of 26 or better. Approved UCLA courses and examinations, and qualifying scores, are determined by the College Faculty Executive Committee.

Applicable courses may also fulfill preparation for the major requirements and, if approved for general education (GE) credit, may fulfill a GE requirement.

Transfer students with 90 or more units who have completed the Intersegmental General Education Transfer Curriculum (IGETC) will have satisfied the quantitative reasoning and reciprocity requirements. No transfer student is admitted to the College without completing, with a C or better grade (a C– grade is not acceptable), a college-level quantitative reasoning course that Undergraduate Admission accepts as equivalent to those approved by the College Faculty Executive Committee. Approved courses include:

- Biostatistics 100A, 100B
- Life Sciences 20, 30A, 30B, 40
- Mathematics 3A, 31A, 31AL
- Philosophy 31
- Political Science 6, 6R
- Program in Computing 10A, 10B, 10C
Foreign Language Requirement

The foreign language requirement may be satisfied by one of the following methods: completing a college-level foreign language course equivalent to level three or above at UCLA with a C or Passed or better grade; or scoring 3, 4, or 5 on the College Board Advanced Placement (AP) foreign language examination in Chinese, French, German, Italian, Japanese, or Spanish, or scoring 4 or 5 in Latin, thereby earning College credit; or presenting a UCLA foreign language departmental examination score indicating competency through level three. Consult the Schedule of Classes or the appropriate department for times and places of regularly scheduled examinations. Students who wish to demonstrate proficiency in a language taught in a UCLA department that has no scheduled examination should contact the appropriate department to arrange for one. Students who wish to take an examination in a language not taught at UCLA should contact a College counselor.

Transfer students with 90 or more units who have completed the Intersegmental General Education Transfer Curriculum (IGETC) will have satisfied the foreign language and reciprocity requirements.

Courses that may be used to fulfill this requirement are published on the Registrar’s foreign language requirement web page.

Diversity Requirement

The diversity requirement may be satisfied by completing one course from the faculty-approved list of courses. The course must be taken for a letter grade, and students must receive a C or better grade (a C– grade is not acceptable). Applicable courses may also fulfill major, minor, or elective requirements; and if approved for general education (GE) credit, may fulfill a GE requirement. A list of approved courses is available in the Schedule of Classes.

General Education Requirements

General education (GE) is more than a checklist of required courses. It is a program of study that reveals to students the ways that research scholars in the arts, humanities, social sciences, and natural sciences create and evaluate new knowledge; introduces students to the important ideas and themes of human cultures; fosters appreciation for the many perspectives and diverse voices that may be heard in a democratic society; and develops the intellectual skills that give students the dexterity they need to function in a rapidly changing world.

This entails the ability to make critical and logical assessments of information, both traditional and digital; deliver reasoned and persuasive arguments; and identify, acquire, and use the knowledge necessary to solve problems.

Applicable courses may also fulfill major, minor, or elective requirements; and if approved for diversity or writing, may fulfill the diversity requirement and/or Writing II requirement.

Foundations of Knowledge

General education courses are grouped into three foundational areas: Foundations of the Arts and Humanities, Foundations of Society and Culture, and Foundations of Scientific Inquiry.

Ten courses (47 units minimum) are required. GE-approved Writing II courses may fulfill an appropriate foundational area. See the foundational area descriptions below for a breakdown of courses required.

Students who successfully complete a year-long GE cluster series fulfill the Writing II requirement, complete 40 percent of their general education requirements, and receive laboratory/demonstration credit where appropriate.

Courses listed in more than one category can fulfill GE requirements in only one of the categories.

Foundations of the Arts and Humanities

Three 5-unit courses, one from each subgroup:

- Literary and Cultural Analysis
- Philosophical and Linguistic Analysis
- Visual and Performance Arts Analysis and Practice
Courses in this area supply perspectives and intellectual skills necessary to comprehend and think critically about our situation in the world as human beings. In particular, courses furnish the basic means to appreciate and evaluate the ongoing efforts of humans to explain, translate, and transform their diverse experiences of the world through such media as language, literature, philosophical systems, images, sounds, and performances. Courses introduce students to the historical development and fundamental intellectual and ethical issues associated with the arts and humanities, and may also investigate the complex relations between artistic and humanistic expression and other facets of society and culture.

**Foundations of Society and Culture**
Three 5-unit courses, one from each subgroup and a third course from either subgroup:
- Historical Analysis
- Social Analysis

Courses in this area introduce students to the ways in which humans organize, structure, rationalize, and govern their diverse societies and cultures over time. Courses focus on a particular historical question, societal problem, or topic of political and economic concern in an effort to demonstrate how issues are objectified for study, how data is collected and analyzed, and how new understandings of social phenomena are achieved and evaluated.

**Foundations of Scientific Inquiry**
Four courses, two from each subgroup. One 5-unit course from either subgroup must include laboratory credit. Other courses in the subgroups may be 4 units:
- Life Sciences
- Physical Sciences

Courses in this area ensure that students gain a fundamental understanding of how scientists formulate and answer questions about the operation of both the physical and biological world. Courses also deal with some of the most important issues, developments, and methodologies in contemporary science, addressing such topics as the origin of the universe, environmental degradation, and the decoding of the human genome. Through lectures, laboratory experiences, writing, and intensive discussions, students consider the important roles played by the laws of physics and chemistry in society, biology, Earth and environmental sciences, and astrophysics and cosmology.

**Foundations Course Lists**
Creating and maintaining a general education curriculum is a dynamic process; consequently, courses are frequently added to the list. For the most current list of approved courses that satisfy the Foundations of Knowledge GE plan, contact an academic adviser or see the master list.

**Advanced Placement Examination Credit**
Students may not use Advanced Placement (AP) Examination credit to satisfy the College 10-course foundational area general education requirement. See the College AP table. Consult with a departmental adviser for applicability of AP credit toward course equivalencies or satisfaction of preparation for the major requirements.

**Reciprocity with Other UC Campuses**
Students who transfer to UCLA from other UC campuses and have met all GE requirements prior to enrolling at UCLA are not required to complete the College GE requirements. Written verification from the dean at the other UC campus is required. Consult with a College adviser regarding eligibility for this option.

**Intersegmental General Education Transfer Curriculum**
Transfer students from California community colleges have the option to fulfill UCLA lower-division GE requirements by completing the Intersegmental General Education Transfer Curriculum (IGETC) prior to transfer. The curriculum consists of a series of subject areas and types of courses that have been agreed on by the University of California and the California community colleges. Although GE or transfer core courses are degree requirements rather than admission requirements, students are advised to fulfill them prior to transfer. The IGETC significantly eases the transfer process, as all GE and proficiency requirements, excluding diversity, are fulfilled when students complete the IGETC courses.

Students who are unable to complete one or two IGETC courses prior to transfer may request certification of partial completion of IGETC from their community college. On certification, each of the remaining courses must be completed with a minimum C or Passed or better grade in each. Students who fail to complete the remaining IGETC coursework or who are otherwise not eligible for IGETC or partial IGETC must complete the College GE and proficiency requirements. Consult with a college adviser regarding GE requirements prior to enrolling in any courses.

**Department Requirements**
College of Letters and Science departments generally set two types of requirements that must be satisfied for award of a degree: preparation for the major (lower-division courses) and the major (upper-division courses). Departments also set requirements for minors and specializations.
Preparation for the Major

Admission to a major may require completion of a set of courses known as preparation for the major. Some majors admit applicants to pre-major status until requisite courses are satisfactorily completed. Students in life sciences majors must complete a set of preparatory courses known as the Life Sciences core curriculum. Each department sets its own preparation for the major and eligibility requirements; see Curricula and Courses.

The Major

A major in the College consists of a group of coordinated upper-division courses and is designated as departmental, interdepartmental, or individual. Each course applied toward the major and preparation for the major must be taken for a letter grade unless otherwise stipulated by the department. Students who have been away from UCLA for several terms should consult with their major department or curriculum adviser concerning the requirements under which they are to graduate.

A departmental major consists of a minimum of 36 upper-division units and a maximum of 60 upper-division units. The majors are established and supervised by campus departments. Each department sets its own major requirements; see Curricula and Courses.

Individual Capstone Majors

If students have some unusual but definite academic interest for which no suitable major is offered at UCLA, and have completed at least three terms of work (45 units minimum) at UCLA with a grade-point average of 3.4 or better, they may petition for an individual capstone major. The consent of College Honors Programs and the assistance of a faculty adviser are required. Individual majors must be approved by the dean for undergraduate education.

The individual major must consist of at least 48 and no more than 60 upper-division units, a majority of which must be in departments offering a major in the College. A capstone senior thesis of at least 8 but no more than 12 units is required. For details about individual majors, contact Honors Programs, A311 Murphy Hall.

Double Majors

Students in good academic standing and on track to graduate on time may be permitted to have a double major, consisting of majors from two departments within the College. Both majors must be completed within the maximum limit of 216 units, and students must obtain the approval of both departments and the College.

With few exceptions, double majors in the same department are unacceptable. No more than 20 upper-division units may be shared by both majors.

Minors and Specializations

Students may choose to pursue a minor to complement their major program of study. Minors consist of no fewer than seven courses (28 units) and no more than nine courses (36 units). Some minors also have admission requirements.

The Computing specializations are sequences of supplemental courses that enhance work in a major.

See the list of Undergraduate Minors and Specializations in Majors and Degrees; descriptions appear in Curricula and Courses.

Policies and Regulations

Degree requirements are subject to policies and regulations, including the following:

Student Responsibility

Students should take advantage of academic support resources, but they are ultimately responsible for keeping informed of and complying with the rules, regulations, and policies affecting their academic standing.

Study List

The study list is a record of classes that a student is taking during a particular term. The allowable study list load is up to 19 units. After the first term, students may petition to enroll in more than 19 units if they attained at least a 3.0 grade-point average the preceding term in a total program of at least 15 units and have an overall grade-point average of 3.0. First-term transfer students from any other UC campus may carry excess units on the same basis as students who have completed one or more terms at UCLA; however, they are not encouraged to do so.

Degree Progress

UCLA is a full-time institution, and it is expected that students complete their undergraduate degree requirements promptly. In order to encourage on-time graduation and support a quality education that is accessible, undergraduate students in the College are allowed to enroll through spring or summer of their fourth year (for students admitted as first years) or fall of their third year (for students admitted as transfers). Students may request an exception from their academic advising unit by submitting a petition.
for additional time if needed based on documented extenuating circumstances.

The Degree Audit is a record of degree requirements and the courses taken to fulfill them. Students are responsible for monitoring their progress toward the degree. They must read and understand the UCLA General Catalog, and consult regularly with College and departmental advisers to confirm they are satisfying all program requirements. Departmental advisers advise students on progress and completion of the major requirements. Academic advisers and counselors in College Academic Counseling, Academic Advancement Program, Honors Programs, and Student Athletics Counseling assist students with College requirements, degree planning, and Degree Audits on request. Students can also view the Degree Audit through MyUCLA.

Expected Cumulative Progress

During a regular term of enrollment, undergraduate students in the College are required to enroll in a minimum of 13 units. Students are also required to meet cumulative progress unit expectations as outlined in the expected cumulative progress table.

The following courses count toward minimum progress and expected cumulative progress, as well as any other degree requirement, but are exempt from the maximum unit limit of 216:

- Any 19, 88S, 89, 89HC, M97X, 98X, 98XA, 98XB, 99, 189, 189HC, 190, 193, and 194
- Honors Collegium 101D, 101E, and 101G
- Research Practice 192B and 194A
- Science Education 1XP and 10XP
- University Studies 10A, 10B, 10C, 10D, 10E, 10F, and 30

Reduced Fee Programs

While full-time study is expected and required of students, some students may qualify for part-time study due to compelling reasons of occupation, home and family responsibilities, or health. Under this policy, part-time status is defined as 10 or fewer units per term based on enrolled units at the end of the third week, and is presumed to be of a permanent nature. On approval of part-time status, a reduction of tuition by one half and a reduction of nonresident supplemental tuition by one half are approved.

To be eligible for part-time study, students must provide documentation of occupation, home and family responsibility, or health that prevents them from carrying a full-time study load; as well as documentation of a need for part-time study for a minimum of three consecutive terms. Once approved for part-time study, students must complete two courses totaling 10 units or fewer in each of the three consecutive terms. Only under documented extraordinary circumstances is a one-course study list approved. Documentation must specify that a one-course study list is warranted.

Students should submit a request for reduced fees with the Registrar’s Office. The application for part-time study must be submitted with accompanying documentation by Friday of the second week of the term. Students approved for part-time study who become enrolled in or receive credit for more than 10 units during a term must pay full fees for that term.

Declaring a Major

Students are expected to select a major by the beginning of their junior year. This may be a program of related upper-division courses within a single department (departmental major) or a group of related courses involving a number of departments (interdepartmental major) or, under certain circumstances, a group of courses selected to meet a special need (individual capstone major).

Some entering freshmen are unsure about specific academic goals and request to be admitted to the College as “undeclared.” These students then explore fields of study by taking introductory courses in the physical and life sciences, social sciences, and humanities in search of an area that most excites their interest. UCLA encourages all students, even those who may have a specific major in mind, to explore the vast array of disciplines and fields that are available.

All students with 90 or more units toward a degree are expected to declare a pre-major or a major. When they are ready to do so, students obtain approval from the department or interdepartmental degree committee that governs their intended major.

Changing a Major

Students in good academic standing who wish to change their major may petition to do so, provided they can complete the new major and are on track to graduate on time. Admission to certain majors may be closed or restricted. Changes are normally not permitted if students are not in good academic standing or have begun their last term. Students should consult the department regarding eligibility and admission procedures.

Students who fail to meet eligibility or major requirements may be denied the privilege of entering or continuing in that major. Some departments may have higher grade-point requirements for their preparation and major courses or other restrictions; consult with the appropriate department regarding minimum standards and eligibility requirements.
Re-entering Students and Their Majors

Students returning to UCLA to resume their studies after an absence of several years may find their previous major area of study is no longer available. They must select a current major in which to complete their studies. Consult with an academic adviser for assistance.

Credit Limitations

The following credit limitations apply to all undergraduate students enrolled in the College. In many cases, units are not deducted until the final term before graduation. Students with questions should consult with an academic adviser.

Transfer students with credit from other institutions (advanced standing credit) receive a Degree Audit from Undergraduate Admission indicating the transferable units from former institutions. However, the following credit limitations may reduce the total number of transferred units that apply toward the degree in the College. Consult with an adviser in the College about these limitations.

Advanced Placement Examinations

Advanced Placement (AP) Examination credit may not be applied toward a degree unless students had less than 36 units of credit at the time of the examination(s). See the College AP table for UCLA course equivalents and credit allowed for GE requirements.

College Level Examination Program

Credit earned through the College Level Examination Program (CLEP) and through the California State University English Equivalency Examination may not be applied toward the bachelor’s degree.

Community College/Lower Division Transfer Limitation

After completing 105 lower-division quarter units toward the degree in all institutions attended, students are allowed no further unit credit for courses completed at a community college or for lower-division courses completed at any institution outside of the University of California.

Credit by Examination

Within the College, eligibility for credit by examination is usually limited to students who have been approved as Departmental Scholars or who are admitted to a departmental honors program or Honors Programs. Students who have completed a minimum of 12 units at UCLA with a minimum 3.5 overall grade-point average may petition for credit by examination. The examination for that course must be taken successfully before students may petition for credit by examination in another course.

Students may receive credit by examination for only one course out of 10 courses completed. Credit by examination may not be used to gain credit for prior knowledge, audited courses, or courses taken elsewhere. Units for a course taken by examination are applied toward the 216-unit maximum allowable units for graduation. Petitions for credit by examination with a fee are available only through an appointment with a counselor in Honors Programs, A311 Murphy Hall.

Education Abroad Program

Students participating in the Education Abroad Program may receive a maximum of 56 units of credit toward the degree including units earned in an Intensive Language Program.

Foreign Language

Credit is not allowed for completing a less advanced course in grammar and/or composition after students have received credit for a more advanced course. College credit for an international student’s native language and literature is allowed for courses taken in native colleges and universities or upper-division (advanced language courses only) and graduate courses taken at the University of California or another English-speaking institution of approved standing. No credit is allowed for lower-division courses.

Performance Courses

No more than 12 units of music and/or dance performance courses (Dance 5, 6 through 16, 56 through 65, C109A, C113A, 114, C115, 116, Ethnomusicology 68A through 68Z, 91A through 91Z, 161A through 161Z, 168A through 168Z, Music 50, 60A through 61C, 160A through 161C, C185A through C186C, and World Arts and Cultures 114) may be applied toward the bachelor’s degree, whether taken at UCLA or another institution.

Physical Education

No more than 4 units in physical education activities courses may be applied toward the bachelor’s degree.

Physics Courses

Any two or more courses from Physics 1A, 1AH, 5A, and 6A are limited to a total of 6 units of credit.

ROTC Courses

For students contracted in the Aerospace Studies Department, 36 units of aerospace studies credit may be applied toward the requirements for the bachelor’s degree; for students contracted in the Military Science Department, 26 units of military science credit may be applied; for students
contracted in the Naval Science Department, 26 units of naval science credit may be applied.

**Statistics Courses**
Credit is allowed for only one of Statistics 10, 12, 13, 15 (or former 10H, 11, or 14), and a maximum of 8 units for any combination of introductory statistics courses taken at UCLA and another institution.

**Upper-Division Tutorials**
No more than 8 units of credit may be taken per term in upper-division tutorials numbered 195 through 199. The total number of units allowed in such courses for a letter grade is 32; see specific restrictions under each course.

**300- and 400-Level Courses**
No more than 8 units in the 300 and 400 series of courses may be applied toward the bachelor’s degree. Credit is not granted for X300 and X400 courses taken at UCLA Extension.

**Academic Advising Services**
The College offers academic advising and counseling to help students develop and thrive, both personally and academically, through individual meetings with an adviser in their advising unit: Academic Advancement Program, College Academic Counseling, College Academic Counseling in Athletics, or Honors Programs. College advisers work with students to plan their programs, understand requirements and regulations, learn about available resources, navigate the university, and maximize their undergraduate careers.

**Academic Advancement Program**
Academic Advancement Program (AAP) values student diversity and fosters student empowerment. **AAP counselors** assist students in planning an academic program and meeting College and UC requirements. They also monitor degree progress and connect students with campus resources and opportunities. Counselors are available for scheduled or same-day appointments. Visit 1205 Campbell Hall or call 310-825-1481.

**AAP peer counselors** offer peer support and an undergraduate-focused view of life at UCLA. They also can assist students with planning an academic program and navigating campus resources.

**College Academic Counseling**
**College Academic Counseling** (CAC) is committed to making students’ campus life and learning experience a positive one. Academic advising helps students develop and thrive both personally and academically in individual meetings, workshops, and other events to plan their programs, understand requirements and regulations, learn about available resources, navigate UCLA, and maximize their undergraduate careers. From orientation to graduation, CAC offers information, assistance, and support so that students can make well-informed decisions about their course of study and degree progress. For additional information or advising, students may come to A316 Murphy Hall, Monday through Friday from 8:30 a.m. to 4:30 p.m.; or call 310-825-3382.

**College Academic Mentors** work with first- and second-year students and new transfers for academic advising, choosing a major, and preparing for graduate or professional school. Students can also visit **CAC Peer Counselors** at various locations around campus for quick questions on degree requirements, rules and regulations, deadlines, petitions, and more.

**Honors Programs**
**Honors Programs** offers academic counseling and student advising services in a welcoming, safe, and supportive environment. Honors counselors are specially trained professionals with whom students collaborate for pre- and post-graduate planning; while Honors student affairs advisors assist students in navigating the various university processes, rules, and regulations.

Students are welcome to visit the Honors Programs office, A-311 Murphy Hall, or call 310-825-1553.

**Student Athletics**
**College Academic Counselors in Athletics** (CACiA) are assigned to work with UCLA NCAA varsity student athletes. Each team is assigned a specific counselor. The role of each counselor is to provide academic advising in the areas of program planning, academic difficulty advising, petitioning degree requirements, and major selection. CACiA support students as they explore academic and personal goals, and aim to empower them to take ownership of their educational experience. CACiA are also trained to observe and counsel with NCAA regulations in mind.

College Academic Counselors in Athletics are located in Academic and Student Services (AS2) in Athletics in Suite 127 of the JD Morgan Center. Student athletes can contact this office at (310) 825-8699 or by e-mail.

**Honors**
College undergraduate students who achieve scholastic distinction may qualify for the following honors and programs.
College Honors

The highest academic recognition the College confers on its undergraduate students is College Honors, which is awarded to graduating seniors who successfully complete the College Honors program and who have an overall University of California grade-point average of 3.5 or better. The program offers exceptional undergraduate students an opportunity to pursue individual excellence.

Dean’s Honors

The Dean’s Honors list recognizes high scholastic achievement in any one term. The following criteria are used to note Dean’s Honors on student records: a 3.915 grade-point average (GPA) in any one term, with at least 12 letter-graded units. The minimum GPA required is subject to change on an annual basis. Students are not eligible for Dean’s Honors in any given term if they receive an Incomplete or a Not Passed (NP). Dean’s Honors are automatically recorded on the transcript for the appropriate term.

Departmental Honors

Individual departments and programs in the College offer departmental honors. Admission and curricular requirements vary according to the department or program. See Curricula and Courses for details, and consult with a departmental adviser about procedures and arrangements. Students who successfully complete the requirements graduate with departmental honors or highest honors.

Latin Honors

Students who have achieved scholastic distinction may be awarded the bachelor’s degree with Latin honors. To be eligible, students must have completed 90 or more units for a letter grade at the University of California and must have attained an overall grade-point average (GPA) at graduation that places them in the top 20 percent of College graduates (GPA of 3.915 or better) for cum laude, the top 10 percent (GPA of 3.965 or better) for magna cum laude, or the top five percent (GPA of 3.985 or better) for summa cum laude. Coursework taken on the Education Abroad Program is applied toward Latin honors at graduation. The minimum GPAs required are subject to change on an annual basis. Required GPAs in effect in the graduating year (fall, winter, spring, summer) determine student eligibility. Students should consult their Degree Audits, or the Registrar’s honors web page, for the most current Latin honors calculations.

Departmental Scholar Program

Departments may nominate exceptionally promising undergraduate students (juniors and seniors) as UCLA Departmental Scholars to pursue bachelor’s and master’s degrees simultaneously. Qualifications include completion of 24 courses (96 quarter units) at UCLA or the equivalent at a similar institution, the requirements in preparation for the major, and eligibility to participate in the College Honors program. Students must also have at least one term of coursework remaining at UCLA. To obtain both the bachelor’s and master’s degrees, students must be provisionally admitted to the Division of Graduate Education, fulfill requirements for each program, and maintain a minimum 3.0 (B) GPA. No course may be used to fulfill requirements for both degrees. Interested students should consult with their department well in advance of application dates for graduate admission. For more information, contact the Honors Programs Office in A311 Murphy Hall.

Graduate Study

The College of Letters and Science offers graduate students a variety of opportunities for academic pursuit, faculty-sponsored research, and fieldwork relative to specific programs and career goals.

With Division of Graduate Education approval and subject to UCLA minimum requirements, each department sets its own standards for admission and other requirements for award of master’s and doctorate degrees. For complete degree requirements, see program requirements for UCLA graduate degrees.

For information on proficiency in English requirements for international graduate students, see Graduate Admission in Graduate Study.

David Geffen School of Medicine

Steven M. Dubinett, MD, Dean

Geffen School of Medicine
1400 Geffen Hall
310-825-6081
School admissions e-mail

The top-ten-ranked David Geffen School of Medicine at UCLA is internationally recognized as a leader in research, medical education, and patient care. Along with the UCLA Health hospitals and facilities, the school is affiliated with more than a dozen major Southern California health care institutions.

Degrees

The Geffen School of Medicine offers an MD degree program and postgraduate medical training programs; its
An articulated program with the Fielding School of Public Health allows students to earn both the MD and MPH degrees in five years. The program includes four years of medical school and one year plus one additional quarter at the Fielding School of Public Health. Separate application must be made to the Fielding School of Public Health during the second year of medical school. For more information on applying to the MPH, see the Fielding School admissions web page.

Concurrent Degree Programs

Concurrent programs with the Anderson Graduate School of Management and Luskin School of Public Affairs allow UCLA medical students to earn both the MD and MBA degrees, or MD and MPP degrees, over five years by following a designated course of study and some shared coursework. Separate application must be made to the Anderson Graduate School of Management or Luskin School of Public Affairs during the second year of medical school.

Special Programs

Partnerships

Extending medical education to a broader segment of tomorrow’s physicians and researchers, the Geffen School of Medicine admits a select group of students into two innovative partnership programs. In addition to completing the requirements for the MD degree, students engage in specialized coursework and/or projects designed to fulfill the mission of each program.

Charles Drew/UCLA Medical Education Program

The mission of the Charles Drew University (CDU)/UCLA Medical Education Program is to train students to practice medicine with competence and compassion in disadvantaged rural and urban communities. Each year 24 students are admitted to the program. Students complete their pre-clerkship training at the UCLA campus, and complete their clinical work in specially designated training centers in medically underserved communities and at UCLA and affiliated hospitals.

UCLA PRIME Program

The UCLA PRIME Program is a five-year, dual-degree program to develop leaders in medicine who address policy, care, and research issues in health care for underserved populations. A commitment to serve and experience in working with diverse medically disadvantaged populations is paramount. The program leads to the MD and a master’s degree in areas that complement the mission of the pro-
Postgraduate Medical Training

Postgraduate medical training programs, including residencies, are offered through all the clinical departments at UCLA and the affiliated training hospitals such as Harbor-UCLA, Cedars-Sinai, and Greater Los Angeles VA System. Programs at the affiliated institutions broaden the scope of the teaching programs by offering extensive clinical facilities, special population settings, and diverse practice modes. Information about these programs is available from the individual clinical departments of the Geffen School of Medicine or the affiliated hospitals.

Semel Institute for Neuroscience and Human Behavior

The Semel Institute is one of the world’s leading interdisciplinary research and education institutes devoted to the understanding of complex human behavior. Fourteen research centers ranging from genetics to human culture, together with research initiatives distributed widely across the academic departments of the Geffen School of Medicine and the College of Letters and Science, offer a comprehensive and outstanding research and training environment for the study of neuroscience and behavior.

The research portfolio of the 400 faculty members, graduate students, and fellows who work in the institute spans behavioral genetics, developmental neurobiology, cognitive neuroscience, neuropharmacology, brain imaging, clinical research, health policy, and sociocultural studies of human behavior and its disorders.

Henry Samueli School of Engineering and Applied Science

Ah-Hyung Alissa Park, PhD, Dean
Samueli School of Engineering and Applied Science
6426 Boelter Hall
310-825-2826

Founded in 1945, the UCLA Henry Samueli School of Engineering and Applied Science is committed to providing a rigorous hands-on engineering education to undergraduate and graduate students. Recognized internationally as a top-tier school in the field, UCLA Samueli is the birthplace of the Internet and has developed breakthrough technologies in aerospace systems, wireless communication, solar energy, clean water, and much more. As part of the top-ranked public university, the school is committed to a core mission of education, research, and service.

UCLA Samueli supports dynamic programs in traditional and new disciplines, and pursues cutting-edge research in areas such as precision medicine and bioengineering, sustainable and resilient urban systems, advanced materials and manufacturing, robotics and cyberphysical systems, computer networking and cybersecurity, artificial intelligence and machine learning, and data science. Partnerships across campus reflect the school’s commitment to a wide range of interdisciplinary activities in health care, business, public policy, and more.

Students receive their education through lectures, hands-on experience in makerspaces and laboratories, and capstone projects that develop real-world problem-solving skills. The undergraduate degree curriculum also exposes students to the humanities, social sciences, life sciences, and the arts. It includes a technical breadth requirement, designed to provide students with working knowledge of a technical field outside their major. The school emphasizes that engineers and computer scientists must uphold high ethical standards in creating and managing technology, and is committed to mentoring students from diverse backgrounds and experiences. Opportunities exist for students to gain exposure to entrepreneurship and commercialization of technologies. Undergraduate students are encouraged to participate in industrial internships and academic research. Students are committed to a high standard of achievement and service to society, consistent with the mission of UCLA.

Departments and Programs

The Henry Samueli School of Engineering and Applied Science has seven departments that offer study in aerospace engineering, bioengineering, chemical engineering, civil engineering, computer engineering, computer science, computer science and engineering, electrical and computer engineering, electrical engineering, manufacturing engineering, materials engineering, and mechanical engineering. Undergraduate programs in aerospace engineering, bioengineering, chemical engineering, civil engineering, computer science and engineering, electrical engineering, materials engineering, and mechanical engineering are accredited by the Engineering Accreditation Commission of ABET. The computer science and computer science and engineering programs are accredited by the Computing Accreditation Commission of ABET. The undergraduate program in computer engineering, established in fall 2017, will be submitted to ABET for accreditation during the next ABET visit in 2024.
For specific programs, see department information in Curricula and Courses; or refer to the school Announcement available from the Office of Academic and Student Affairs, 6426 Boelter Hall.

**Degrees**

The Henry Samueli School of Engineering and Applied Science offers the following degrees and undergraduate minors:

- Aerospace Engineering BS, MS, PhD
- Bioengineering BS, MS, PhD
- Chemical Engineering BS, MS, PhD
- Civil Engineering BS, MS, PhD
- Computer Engineering BS
- Computer Science BS, MS, PhD
- Computer Science and Engineering BS
- Electrical and Computer Engineering MS, PhD
- Electrical Engineering BS
- Engineering online MS
- Engineering – Aerospace online MS
- Engineering – Computer Networking online MS
- Engineering – Electrical online MS
- Engineering – Electronic Materials online MS
- Engineering – Integrated Circuits online MS
- Engineering – Manufacturing and Design online MS
- Engineering – Materials Science online MS
- Engineering – Mechanical online MS
- Engineering – Signal Processing and Communications online MS
- Engineering – Structural Materials online MS
- Engineering and Applied Science Graduate Certificate of Specialization
- Manufacturing Engineering MS
- Master of Engineering
- Materials Engineering BS
- Materials Science and Engineering MS, PhD
- Mechanical Engineering BS, MS, PhD

**Concurrent Degree Program**

- Computer Science MS/Master of Business Administration

**Undergraduate Minors**

- Bioinformatics
- Data Science Engineering

**Environmental Engineering**

**Undergraduate Admission**

Applicants for admission to the school must satisfy the UC admission requirements as outlined in the Undergraduate Admission section of Undergraduate Study. Students must apply directly to the Henry Samueli School of Engineering and Applied Science by selecting one of the majors within the school or the undeclared engineering option (only available to freshmen). In the selection process, many elements are considered including grades, academic preparation, achievement and ability in science, technology, engineering, and mathematics (STEM), ability to succeed in a rigorous program, demonstrated interest in STEM, and the potential to become a supportive member of an inclusive community that values diversity and welcomes members from all genders and all ethnic, religious, and economic backgrounds.

Applicants are accepted at either the freshman or junior level.

**Admission as a Freshman**

Freshman applicants must meet the UC subject and scholarship requirements described on undergraduate admission. UC requirements specify a minimum of three years of mathematics, including the topics covered in elementary and advanced algebra and two- and three-dimensional geometry. Additional study in mathematics, concluding with calculus or precalculus in the senior year, is strongly recommended and typical for applicants to UCLA Samueli.

**Credit for Advanced Placement Examinations**

Students may fulfill part of the school requirements with credit allowed at the time of admission for College Board Advanced Placement (AP) Examinations with scores of 3, 4, or 5. Students with AP Examination credit may exceed the 213-unit maximum by the amount of this credit. AP Examination credit for freshmen entering in fall quarter fulfills requirements as published on the school AP table.

Students who have completed 36 quarter units after high school graduation at the time of the examination receive no AP Examination credit.

**Admission as a Junior**

Students who begin their college work at a California community college are expected to remain at the community college to complete the lower-division requirements in chemistry, computer programming, English composition, mathematics, physics, and the recommended engineering courses before transferring to UCLA. Transfer students who have completed the recommended lower-division program in engineering at California community colleges normally
can complete the remaining requirements for one of the BS degrees in two to three academic years of full-time study. Students who select certain majors, such as Computer Science and Engineering or Chemical Engineering, may be required to complete additional lower-division courses for the major sequence.

Lower-Division Requirements
 Applicants to the school in junior standing should have completed 90 quarter units (60 semester units) in good standing, including the following lower-division minimum subject requirements:

1. Chemistry courses equivalent to Chemistry and Biochemistry 20A, 20B, 20L at UCLA (only Chemistry and Biochemistry 20A is required for the Electrical Engineering major; the Bioengineering and Chemical Engineering curricula also require Chemistry and Biochemistry 30A, 30AL, 30B). The Computer Engineering, Computer Science, and Computer Science and Engineering majors do not require chemistry


3. Physics courses equivalent to Physics 1A, 1B, 1C, 4AL, 4BL at UCLA, depending on curriculum selected

4. Computer programming: applicants to the Computer Engineering, Computer Science, Computer Science and Engineering, and Electrical Engineering majors may take any C++, C, or Java course to meet the admission requirement, but to be competitive the applicant must take a C++ course equivalent to Computer Science 31 at UCLA. Applicants to Chemical Engineering may take any C++, C, Java, or MATLAB course to satisfy the admission requirement, but lack of a MATLAB course equivalent to Mechanical and Aerospace Engineering M20 or Civil and Environmental Engineering M20 at UCLA will delay time to graduation. Applicants to all other engineering majors may take any C++, C, Java, or MATLAB course to satisfy the admission requirement, but the MATLAB course equivalent to Mechanical and Aerospace Engineering M20 or Civil and Environmental Engineering M20 is preferred

5. At least one general education (GE) course in the arts, humanities, or social sciences as required to be UC eligible

Transfer students must also complete a course equivalent to English Composition 3 at UCLA and a second UC-transferable English composition course.

All lower-division requirements should be completed by the end of the spring term prior to anticipated enrollment at UCLA.

Transfer Credit
 Students transferring to the school from institutions that offer instruction in engineering subjects in the first two years, particularly California community colleges, may be given credit for certain engineering core requirements.

Many sophomore courses in circuit analysis, strength of materials, and properties of materials may satisfy Civil and Environmental Engineering 108, Electrical and Computer Engineering 100, and Materials Science and Engineering 104 requirements respectively. Students should check with the Office of Academic and Student Affairs, 6426 Boelter Hall.

Undergraduate Degree Requirements
 Students must satisfy UC requirements, school requirements, and department requirements for the Bachelor of Science degree.

University Requirements
 The University of California has two requirements that undergraduate students must satisfy in order to graduate: Entry-Level Writing or English as a Second Language, and American History and Institutions. See Degree Requirements in Undergraduate Study for details.

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Courses that do not satisfy specific UC, school, or department requirements are referred to as electives and can be used to meet the minimum unit requirement for graduation.
School Requirements
There are seven requirements that must be satisfied for award of a degree.

Unit Requirement
The minimum units allowed for students is between 180 and 185, depending on the program. The maximum allowed is 213 units.

After 213 quarter units, enrollment may not normally be continued in the school without special permission from the associate dean. This regulation does not apply to Departmental Scholars.

Scholarship Requirement
Students must earn at least a 2.0 (C) grade-point average in all courses taken at any UC campus. In addition, at least a 2.0 grade-point average must be achieved in total upper-division required courses and total upper-division engineering courses. See a counselor in 6426 Boelter Hall for details.

Academic Residence Requirement
Of the last 48 units completed for the BS degree, 36 must be earned in residence at the Samueli School of Engineering and Applied Science on this campus. No more than 16 of the 36 units may be completed in summer sessions at UCLA.

Writing Requirement
Students must complete the UC Entry-Level Writing or English as a Second Language (ESL) requirement prior to completing the school writing requirement.

Students admitted to the school are required to complete a two-term writing requirement—Writing I and Engineering Writing. Both courses must be taken for a letter grade, and students must receive a C or better grade in each (a C– grade is not acceptable).

Writing I
The Writing I requirement must be satisfied by the end of the second year of enrollment by completing English Composition 3, 3D, 3DX, 3E, or 3SL with a C or better grade (a C– or Passed grade is not acceptable). The Writing I requirement may also be satisfied by scoring 4 or 5 on one of the College Board Advanced Placement Examinations in English; completing a course equivalent to English Composition 3 with a C or better grade (a C– or Passed grade is not acceptable) taken at another institution; or scoring 5, 6, or 7 on an International Baccalaureate Higher Level Examination.

Students whose native language is not English may need to take English Composition 1A, 1B, and 21 before enrolling in a Writing I course. All courses in the sequence must be passed with a C or better grade (a C– or Passed grade is not acceptable).

Engineering Writing
The Engineering Writing requirement is satisfied by selecting one approved engineering writing (EW) course from the school writing course list or by selecting one approved Writing II (W) course. The course must be completed with a C or better grade (a C– or Passed grade is not acceptable). Writing courses are published in the Schedule of Classes.

Applicable writing courses also approved for general education credit may fulfill the relevant general education foundational area.

Technical Breadth Requirement
The technical breadth requirement consists of a set of three courses providing sufficient breadth outside the student’s core program. A list of school Faculty Executive Committee-approved technical breadth requirement courses is available in the Office of Academic and Student Affairs, 6426 Boelter Hall, and deviations from that list are subject to approval by the associate dean for Academic and Student Affairs. None of the technical breadth requirement courses selected by students can be used to satisfy other major course requirements.

Ethics Requirement
The ethics and professionalism requirement is satisfied by completing one course from Engineering 181EW, 182EW, 183EW, or 185EW with a C or better grade (a C– or Passed grade is not acceptable). The course may be applied toward the Engineering Writing requirement.

General Education Requirements
General education (GE) is more than a checklist of required courses. It is a program of study that reveals to students the ways that research scholars in the arts, humanities, social sciences, and natural sciences create and evaluate new knowledge; introduces students to the important ideas and themes of human cultures; fosters appreciation for the many perspectives and diverse voices that may be heard in a democratic society; and develops the intellectual skills that give students the dexterity they need to function in a rapidly changing world.

This entails the ability to make critical and logical assessments of information, both traditional and digital; deliver reasoned and persuasive arguments; and identify, acquire, and use the knowledge necessary to solve problems.

Students may take one GE course per term on a Passed/Not Passed (P/NP) basis if they are in good academic standing.
and are additionally enrolled in nine letter-graded units. For details on P/NP grading, see Grades in Policies and Regulations or consult with a counselor in the Office of Academic and Student Affairs.

GE courses used to satisfy the engineering writing and/or ethics requirements must be taken for a letter grade.

**Foundations of Knowledge**

General education courses are grouped into three foundational areas: Foundations of the Arts and Humanities, Foundations of Society and Culture, and Foundations of Scientific Inquiry.

Five courses (24 units minimum) are required. Engineering writing requirement courses also approved for GE credit may be applied toward the relevant GE foundational areas.

Students must meet with a counselor in the Office of Academic and Student Affairs to determine the applicability of GE cluster courses toward the engineering writing or GE requirements.

Courses listed in more than one category can fulfill GE requirements in only one of the categories.

**Foundations of the Arts and Humanities**

Two 5-unit courses selected from two different subgroups:

- Literary and Cultural Analysis
- Philosophical and Linguistic Analysis
- Visual and Performance Arts Analysis and Practice

Courses in this area supply perspectives and intellectual skills necessary to comprehend and think critically about our situation in the world as human beings. In particular, courses furnish the basic means to appreciate and evaluate the ongoing efforts of humans to explain, translate, and transform their diverse experiences of the world through such media as language, literature, philosophical systems, images, sounds, and performances. The courses introduce students to the historical development and fundamental intellectual and ethical issues associated with the arts and humanities and may also investigate the complex relations between artistic and humanistic expression and other facets of society and culture.

**Foundations of Society and Culture**

Two 5-unit courses, one from each subgroup:

- Historical Analysis
- Social Analysis

Courses in this area introduce students to the ways in which humans organize, structure, rationalize, and govern their diverse societies and cultures over time. Courses focus on a particular historical question, societal problem, or topic of political and economic concern in an effort to demonstrate how issues are objectified for study, how data is collected and analyzed, and how new understandings of social phenomena are achieved and evaluated.

**Foundations of Scientific Inquiry**

One course (4 units minimum) from the Life Sciences subgroup or one course from Bioengineering CM145/Chemical Engineering CM145, Chemistry and Biochemistry 153A, or Civil and Environmental Engineering M166/Environmental Health Sciences M166:

- Life Sciences

This requirement is automatically satisfied for Bioengineering and Chemical Engineering majors. The requirement is satisfied for Civil Engineering majors by the natural science requirement.

Courses in this area ensure that students gain a fundamental understanding of how scientists formulate and answer questions about the operation of both the physical and biological world. Courses also deal with some of the most important issues, developments, and methodologies in contemporary science, addressing such topics as the origin of the universe, environmental degradation, and the decoding of the human genome. Through lectures, laboratory experiences, writing, and intensive discussions, students consider the important roles played by the laws of physics and chemistry in society, biology, Earth and environmental sciences, and astrophysics and cosmology.

**Foundations Course Lists**

Creating and maintaining a general education curriculum is a dynamic process; consequently, courses are frequently added to the list. For the most current list of approved
courses that satisfy the Foundations of Knowledge GE plan, consult with an academic counselor or see the master list.

Intersegmental General Education Transfer Curriculum
Transfer students from California community colleges have the option to fulfill UCLA lower-division GE requirements by completing the Intersegmental General Education Transfer Curriculum (IGETC) prior to transfer. The curriculum consists of a series of subject areas and types of courses that have been agreed on by the University of California and the California community colleges. Although GE or transfer core courses are degree requirements rather than admission requirements, students are advised to fulfill them prior to transfer. The IGETC significantly eases the transfer process, as all UCLA GE requirements are fulfilled when students complete the IGETC courses. Students who select the IGETC must complete it entirely before enrolling at UCLA. Otherwise, they must fulfill the Henry Samueli School of Engineering and Applied Science GE requirements. The school does not accept partial IGETC.

Department Requirements
Departments generally set two types of requirements that must be satisfied for award of a degree: preparation for the major (lower-division courses) and the major (upper-division courses). Preparation for the major courses should be completed before beginning upper-division work.

Preparation for the Major
A major requires completion of a set of courses known as preparation for the major. Each department sets its own preparation for the major requirements; see Curricula and Courses.

The Major
Students must complete their major with a scholarship grade-point average of at least 2.0 (C) in all courses in order to remain in the major. Each course in the major department must be taken for a letter grade. See Curricula and Courses for details on each major.

Minors and Double Majors
Students in good academic standing may be permitted to have a minor or double major. The second major must be outside the school (e.g., Electrical Engineering major and Economics major). If approved, no more than 20 upper-division units may be shared by both majors. Students are not permitted to have a double major with two school majors (e.g., Chemical Engineering and Civil Engineering).

Students may file an Undergraduate Request to Double Major or Add Minor form at the Office of Academic and Student Affairs. The school determines final approval of a minor or double major request; review is done on a case-by-case basis, and filing the request does not guarantee approval. Students interested in a minor or double major should meet with their counselor in 6426 Boelter Hall.

While minor and double major requests are considered, specializations are not considered.

Policies and Regulations
Degree requirements are subject to policies and regulations, including the following:

Student Responsibility
Students should take advantage of academic support resources, but they are ultimately responsible for keeping informed of and complying with the rules, regulations, and policies affecting their academic standing.

Study List
The study list is a record of classes that a student is taking during a particular term. It is the student’s responsibility to present a study list that reflects satisfactory progress toward the degree. Study lists or programs of study that do not comply with the standards set by the faculty may result in enforced withdrawal from UCLA or other academic action. Study lists require approval of the dean of the school or a designated representative.

Undergraduate students in the school are expected to enroll in at least 12 units each term. Students enrolling in fewer than 12 units must obtain approval by petition to the dean before enrolling in classes. The normal program is 16 units per term. Students may not enroll in more than 21 units per term unless an Excess Unit Petition is approved in advance by the dean.

Minimum Progress
Full-time undergraduate students must complete a minimum of 36 units in three consecutive terms in which they are registered.

Concurrent Enrollment
Concurrent enrollment—defined as taking courses during regular sessions (fall, winter, and spring quarters) for credit at UCLA and, at the same time, at a non-UC institution, including UCLA Extension—is not permitted except in extraordinary circumstances; and no credit is given for such
courses unless the approval of UCLA Samueli has been obtained by petition prior to enrollment.

Special concurrent enrollment programs with other UC campuses, and intersegmental enrollment programs with California State University (CSU) or California Community College (CCC) schools, are available to eligible students.

Credit Limitations

The following credit limitations apply to all undergraduate students enrolled in the school:

Advanced Placement Examinations

Some portions of Advanced Placement (AP) Examination credit are evaluated by corresponding UCLA course number. If students take the equivalent UCLA course, a deduction of UCLA unit credit is made prior to graduation. See the school AP table.

College Level Examination Program

Credit earned through the College Level Examination Program (CLEP) may not be applied toward the bachelor’s degree.

Community College/Lower Division Transfer Limitation

After completing 105 lower-division quarter units toward the degree in all institutions attended, students are allowed no further unit credit for courses completed at a community college or for lower-division courses completed at any institution outside of the University of California. The University of California does not grant transfer credit for community college or lower-division courses beyond 105 quarter units, but students may still receive subject credit for this coursework to satisfy lower-division requirements. Units earned through Advanced Placement (AP), International Baccalaureate (IB), and/or A-Level examinations are not included in the limitation. Units earned at any UC campus (through extension, summer, cross-campus, UCEAP, Intercampus Visitor Program, and regular academic year enrollment) are not included in the limitation. To convert semester units into quarter units, multiply the semester units by 1.5; for example, 12 semester units x 1.5 = 18 quarter units. To convert quarter units into semester units, multiply the quarter units by .666; for example, 12 quarter units x .666 = 7.99 or 8 semester units.

Foreign Language

No credit is granted toward the bachelor’s degree for college foreign language courses equivalent to quarter levels one and two if the equivalent of level two of the same language was completed with satisfactory grades in high school.

Repetition of Courses

For undergraduate students who repeat a total of 16 or fewer units, only the most recently earned letter grades and grade points are computed in the grade-point average (GPA). After repeating 16 units, the GPA is based on all letter grades assigned and total units attempted. The grade assigned each time a course is taken is permanently recorded on the transcript.

1. To improve the grade-point average (GPA), students may repeat only those courses in which they receive a C– or lower grade; NP or U grades may be repeated to gain unit credit. Courses in which a letter grade is received may not be repeated on a P/NP or S/U basis. Courses originally taken on a P/NP or S/U basis may be repeated on the same basis or for a letter grade.

2. Repetition of a course more than once requires the approval of the College or school or the dean of the Division of Graduate Education and is granted only under extra-ordinary circumstances.

3. Degree credit for a course is given only once, but the grade assigned each time the course is taken is permanently recorded on the transcript.

4. There is no guarantee that in a later term a course can be repeated (such as in cases when a course is deleted or no longer offered). In these cases, students should consult with their academic counselor to determine if there is an alternate course that can be taken to satisfy a requirement. The alternate course would not count as a repeat of the original course.

Counseling Services

Academic counselors in the Office of Academic and Student Affairs assist students with UCLA procedures and answer questions related to general requirements.

New undergraduate students must have their course of study approved by an academic counselor. After the first term, curricular and career advising is accomplished on a formal basis. First-year students are assigned a faculty adviser in their particular specialization.

In addition, undergraduate students are assigned, by major, to an academic counselor in the Office of Academic and Student Affairs who provides them with advice regarding general requirements for degrees, and UC, UCLA, and school regulations and procedures. It is the student’s responsibility to periodically meet with their academic counselor, as well as with their faculty adviser, to discuss curriculum requirements, programs of study, and any other academic matters of concern.
Students normally follow the curriculum in effect when they enter the school. California community college transfer students may also select the curriculum in the catalog in effect at the time they began their community college work in an engineering program, provided attendance has been continuous since that time.

Students admitted to UCLA in fall quarter 2012 and thereafter use the Degree Audit system, which can be accessed through MyUCLA. Students should contact their academic counselor in 6426 Boelter Hall with any questions.

Undergraduate students admitted to UCLA prior to fall quarter 2012, and beginning their upper-division major field coursework, are advised to meet with their academic counselor in 6426 Boelter Hall to review their degree requirements.

Honors
Undergraduate students who achieve scholastic distinction may qualify for the following honors and programs:

Dean’s Honors
The Dean’s Honors list recognizes high scholastic achievement in any one term. The following criteria are used to note Dean’s Honors on student records: a 3.862 grade-point average (GPA) in any one term, with at least 15 units (12 units of letter grade). The minimum GPA required is subject to change on an annual basis. Students are not eligible for Dean’s Honors in any given term if they receive an Incomplete (I) grade, or repeat a course. Only courses applicable to an undergraduate degree are considered toward eligibility for Dean’s Honors. Dean’s Honors are automatically recorded on the transcript for the appropriate term.

Latin Honors
Students who have achieved scholastic distinction may be awarded the bachelor’s degree with honors. To be eligible, students must have completed 90 or more units for a letter grade at the University of California and must have attained a cumulative grade-point average (GPA) at graduation that places them in the top 20 percent of the school (GPA of 3.862 or better) for cum laude, the top 10 percent (GPA of 3.934 or better) for magna cum laude, and the top five percent (GPA of 3.972 or better) for summa cum laude. The minimum GPAs required are subject to change on an annual basis. Required GPAs in effect in the graduating year determine student eligibility.

Based on grades achieved in upper-division courses applied to a specific school degree requirement, engineering students must also have a 3.862 GPA for cum laude, 3.934 for magna cum laude, and 3.972 for summa cum laude. For all designations of honors, students must have a minimum 3.25 GPA in their major field upper-division courses. Upper-division courses that are not applied to a specific school BS degree requirement are excluded from these upper-division averages.

Departmental Scholar Program
Exceptionally promising juniors or seniors may be nominated as Departmental Scholars to pursue engineering bachelor’s and master’s degree programs simultaneously. Minimum qualifications include the completion of 24 courses (96 quarter units) at UCLA, or the equivalent at a similar institution; a minimum 3.7 grade-point average (GPA) in the major field upper-division courses and a minimum 3.7 cumulative GPA; and the requirements in preparation for the major. To obtain both the bachelor’s and master’s degrees, Departmental Scholars fulfill the requirements for each program. Students may not use any one course to fulfill requirements for both degrees.

For details, contact the Office of Academic and Student Affairs in 6426 Boelter Hall well in advance of application dates for admission to graduate standing.

Exceptional Student Admissions Program
There is an Exceptional Student Admissions Program (ESAP) for outstanding Samueli School undergraduates who wish to enter the school graduate program upon completion of the BS degree. ESAP is an alternative to the Departmental Scholar Program. In contrast to that program, an ESAP-admitted student would be an enrolled graduate student and would be eligible for consideration of graduate fellowships and teaching assistant positions if available.

Special Programs
Extracurricular Activities
Students are encouraged to participate in UCLA extracurricular activities, especially those relevant to engineering such as the student engineering society (Engineering Society, University of California), student publications, and programs of the technical and professional engineering societies in the Los Angeles area.

The student body takes an active part in shaping policies of the school through elected student representatives on the school Faculty Executive Committee.
Women in Engineering

Among UCLA engineering students, women make up approximately 30 percent of the undergraduate and 25 percent of the graduate enrollment. Today’s opportunities for women in engineering are excellent, as both employers and educators try to change the image of engineering as a males-only field. Women engineers are in great demand in all fields of engineering.

The Society of Women Engineers (SWE) is a not-for-profit educational and service organization that empowers underrepresented groups to succeed and advance in the field of engineering. Its objective is to promote diversity in engineering and provide professional, outreach, advocacy, and technical opportunities for its members. It hosts many flagship events including the Evening with Industry networking event; WOW That’s Engineering Day, at which girl scouts are taught about engineering on campus; Engineers for Professionals Inclusions Conference (EPIC), at which a panel of industry speakers discusses ways to combat prejudice in the workplace; and QWER Hacks, which is an LGBTQ+ friendly beginner hackathon. It also provides various technical workshops, mentorship programs, and socials to build a community.

Continuing Education

Continuing education in engineering is developed and administered by the UCLA Extension (UNEX) Engineering and Technology Department in close cooperation with Henry Samueli School of Engineering and Applied Science. The department offers evening classes, short courses, certificate programs, special events, and education and training at the workplace.

Graduate Study

Admission

In addition to meeting the requirements of the Division of Graduate Education, applicants to graduate programs for some departments in the Samueli School of Engineering and Applied Science are required to take the General Test of the Graduate Record Examination (GRE). Specific information about the GRE may be obtained from the department of interest.

Students entering the PhD program are normally expected to have completed the requirements for the master’s degree with at least a 3.25 grade-point average and to have demonstrated creative ability. Check with the department of interest for specific GPA requirements. Usually the MS degree is required for admission to the PhD program. Exceptional students, however, may be admitted directly to the PhD program upon receiving their BS degree. In most cases, the applicant is expected to obtain their MS degree along the way.

For information on proficiency in English requirements for international graduate students, see Graduate Admission in Graduate Study.

To submit a graduate application, see application for graduate admission.

Master of Science in Engineering Online Degree

The Master of Science in Engineering online self-supporting degree program enables employed engineers and computer scientists to augment their technical education beyond the Bachelor of Science degree, and enhances their value to the technical organizations by which they are employed.

Master of Engineering Degree

The one-year Master of Engineering (MEng) is a self-supporting, professional degree designed to develop future engineering leaders. Tailored to those who wish to pursue technical management positions, the degree addresses the needs of both students and industry with high-tech skill set and management savvy. Students in the program develop technical mastery in emerging research areas, learning business and technology management skills while creating real-world projects with industry input.

Concurrent Degree Program

A concurrent degree program between the Henry Samueli School of Engineering and Applied Science and the Anderson Graduate School of Management allows students to earn two master’s degrees simultaneously: the MBA and the MS in Computer Science. Students should contact the Office of Academic and Student Affairs for details.

PhD Degrees

The PhD programs prepare students for advanced study and research in the major areas of engineering and computer science. All candidates must fulfill the minimum requirements of the Division of Graduate Education. Major and minor fields may have additional course and examination requirements. For more information, contact the individual department.

Fields of Study

Established fields of study for the PhD are listed below. With the support of an adviser, students may propose any other
field of study to their department. Instructions on the definition of acceptable ad hoc fields and procedures for their approval are available in each department office.

**Bioengineering Department**
Biomedical data sciences; biomedical devices and instrumentation; biomedical image processing (biomedical imaging hardware development and biomedical signal and image processing; molecular, cellular, and tissue engineering; neuroengineering

**Chemical and Biomolecular Engineering Department**
Chemical engineering

**Civil and Environmental Engineering Department**
Civil engineering materials, environmental engineering, geotechnical engineering, hydrology and water resources engineering, structures (structural mechanics and earthquake engineering), transportation engineering

**Computer Science Department**
Artificial intelligence, computational systems biology, computer networks, computer science theory, computer system architecture, data science computing, graphics and vision, software systems

**Electrical and Computer Engineering Department**
Circuits and embedded systems, physical and wave electronics, signals and systems

**Materials Science and Engineering Department**
Ceramics and ceramic processing, electronic and optical materials, structural materials

**Mechanical and Aerospace Engineering Department**
Applied plasma physics, applied mathematics, and data science and machine learning (established minors fields only); design, robotics, and manufacturing; fluid mechanics; micro-nano engineering; structural and solid mechanics; systems and control; thermal science and engineering

**Graduate Certificate of Specialization**
The school offers a Certificate of Specialization in all areas, except computer science. Requirements for admission are the same as for the MS degree.

Each graduate certificate program consists of five 100- or 200-series courses, at least two of which must be at the graduate level. No work completed for any previously awarded degree or credential may be applied toward the certificate. Successful completion of a certificate program requires an overall minimum 3.0 (B) grade-point average in all courses applicable to the certificate. In addition, graduate certificate candidates are required to maintain a minimum 3.0 (B) grade-point average in 200-series courses used in the program. A minimum of three terms of academic residence is required. The time limitation for completing the requirements of a certificate program is two calendar years. Details about certificate programs may be obtained from each department office.

Courses completed in the school for a Certificate of Specialization may subsequently be applied toward master’s and/or doctorate degrees.

**Graduate Degree Requirements**
Graduate degree information is updated annually in program requirements for UCLA graduate degrees.

Lower-division courses may not be applied toward graduate degrees. In addition, most departments do not allow courses that are required for a BS degree in engineering to count toward a graduate degree. Consult the departmental graduate affairs office for more information.

Individual departments may impose certain restrictions on the applicability of other undergraduate courses toward graduate degrees. Consult with the graduate adviser on departmental requirements and restrictions.

**Major Fields or Subdisciplines**
The MS program focuses on one major field. The major fields and subdisciplines offered at the MS level in most cases parallel those listed for the PhD program. There are some differences (for example, manufacturing engineering in the Department of Mechanical and Aerospace Engineering is offered only at the MS level). Students should contact the specific department regarding possible differences between the MS and PhD fields and subdisciplines. Students are free to propose to the school any other field of study, with the support of their adviser.

**Course Requirements**
A total of nine courses is required for an MS degree, including a minimum of five graduate courses. (Some fields require more than five; obtain specific information from the department of interest.) A majority of the total formal course requirement and of the graduate course requirement must consist of school courses. In the thesis plan, seven of the nine courses must be formal courses, including at least four from the 200 series. The remaining two courses may be 598 courses involving work on the thesis. In the comprehensive examination plan, at least five of the nine courses must be in the 200 series; the remaining four courses may be either 200-series graduate or upper-division undergraduate courses. No 500-series courses may be applied toward the comprehensive examination plan requirements.

**Thesis Plan**
The thesis must either describe some original piece of research that students have done, usually but not necessar-
ily under the supervision of the thesis committee; or supply a critical exposition of some topic in their major field of study. Students would normally start to plan the thesis at least one year before award of the MS degree is expected. There is no examination under the thesis plan.

**Comprehensive Examination Plan**

For information on the comprehensive examination plan for each department, see [program requirements for UCLA graduate degrees](#).

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**Herb Alpert School of Music**

Eileen L. Strempel, DM, Dean

**Herb Alpert School of Music**

2539 Schoenberg Music Building

310-825-4761

First of its kind in the UC system, the UCLA Herb Alpert School of Music focuses on scholarship, performance, composition, pedagogy, and understanding of music in all its contemporary and historical diversity.

With its three outstanding departments of Ethnomusicology, Music, and Musicology—and interdepartmental programs for Global Jazz Studies and Music Industry—the Herb Alpert School of Music aspires to educate the whole student through productive collaboration between performance and scholarship; a cross-cultural, global understanding of the art of music; and preparatory training for a broad range of careers in music after graduation.

Public concerts, lectures, symposia, master classes, and musical theater and opera productions are hallmarks of the school. Each department hosts a calendar of events open to the entire community, enriching the lives of both those on stage and those in the audience, and contributing to the quality of life in Los Angeles and beyond.

Schoenberg Music Building includes the Lani Hall (recital hall) and Schoenberg Hall (main concert hall), both fully equipped for audio recording. The building also houses the Music Library, Ethnomusicology Archive, Ethnomusicology Laboratory, Henry Mancini Media Laboratory, World Instrument Collection, and Herbie Hancock Institute of Jazz Performance, as well as numerous classrooms, practice rooms, orchestra room, band room, choral room, organ studio, and ethnomusicology performance rooms.

The Evelyn and Mo Ostin Music Center includes a high-technology recording studio, spaces for rehearsal and teaching, a café and social space for students, and an Internet-based music production center.

**Departments and Programs**

Students in the Ethnomusicology Department study the performance and context of music-making from a global perspective. The Music Department offers majors in Music Composition, Music Education, and Music Performance. The Musicology Department offers students a broad understanding of the history and culture of music.

The school is also home to four undergraduate minors. The Musicology minor offers undergraduates an overview of music history and the study of music. Students may select from a wide variety of undergraduate courses that range through the history of European and American music. The Music Industry minor introduces students to critical perspectives on the formative effects the music industry and music technology have on musical practices around the world. The Ethnomusicology minor gives students who are interested in the culture of music a unique opportunity to participate in a hands-on educational experience. Students perform in ensembles, explore the world’s instruments, and study global traditions. The Iranian Music minor introduces students to the rich variety of musical expressions in Iran and the Iranian diaspora by combining hands-on musical experiences with academic study. Students take advantage of three ensembles to study the performative, improvisatory, and experimental aspects of Iranian traditional and popular music.

Information regarding academic programs is available from the [Office of Student Affairs](#), 1642 Schoenberg Music Building.

**Teaching Credentials**

Students interested in obtaining instructional credentials for California elementary and secondary schools should contact the [Teacher Education Program](#), 1009 Moore Hall.

**Degrees**

The Herb Alpert School of Music offers the following degrees and undergraduate minors:

- Ethnomusicology BA, MA, CPhil, PhD
- Global Jazz Studies BA
- Master of Music
- Music BA, MA, MM, CPhil, DMA, PhD
- Music Composition BA
- Music Education BA
- Music History and Industry BA
- Music Industry BA
- Music Performance BM
- Musicology BA, MA, CPhil, PhD
Undergraduate Minors

- Ethnomusicology
- Iranian Music
- Music Industry
- Musicology

Undergraduate Admission

In addition to the UC undergraduate application, some departments require auditions, interviews, portfolios, or evidence of creativity. Information regarding departmental requirements is available on each department website; see the school undergraduate admission web page. After the UC application has been submitted, applicants need to submit supplemental application material and should consult the individual department website for details.

Undergraduate Degree Requirements

Students must satisfy UC requirements, school requirements, and department requirements for the Bachelor of Arts and Bachelor of Music degrees.

University Requirements

The University of California has two requirements that undergraduate students must satisfy in order to graduate:

1. Entry-Level Writing or English as a Second Language, and American History and Institutions. See Degree Requirements in Undergraduate Study for details.

Students enrolled in English Composition 1A, 1B, and 2I must take each course for a letter grade.

School Requirements

There are eight requirements that must be satisfied for award of a degree.

Unit Requirement

Students must complete for credit, with a passing grade, no fewer than 180 units and no more than 216 units, of which at least 60 units must be upper-division courses (numbered 100 through 199). Credit for upper-division tutorials numbered 195 through 199 is limited to a maximum of 24 units total for a letter grade, 8 of which may be applied toward the major.

Scholarship Requirement

A 2.0 (C) grade-point average is required in all work attempted at the University of California, exclusive of courses in UCLA Extension and those graded Passed/Not Passed. A 2.0 (C) grade-point average is also required in all upper-division courses in the major taken at the University of California, as well as in all courses applied toward the general education and UC requirements.

Academic Residence Requirement

Students are in residence while enrolled and attending classes at UCLA with a declared major in the Herb Alpert School of Music. Of the last 45 units completed for the bachelor’s degree, 35 must be earned while in residence at the school. No more than 18 of the 35 units may be completed in UCLA summer sessions.

Courses offered by UCLA Extension may not be applied toward any part of the residence requirement.

Writing Requirement

Students must complete the UC Entry-Level Writing or English as a Second Language (ESL) requirement prior to completing the school writing requirement.

Students admitted to the school are required to complete a two-term writing requirement—Writing I and Writing II. The courses must be taken for letter grades, and students must
receive a C or better grade in each (a C– grade is not acceptable).

Writing I

The Writing I requirement must be satisfied within the first three terms of enrollment by completing English Composition 3, 3D, 3DX, 3E, or 3SL with a C or better grade (a C– or Passed grade is not acceptable).

The Writing I requirement may also be satisfied by scoring 4 or 5 on one of the College Board Advanced Placement Examinations in English; completing a course equivalent to English Composition 3 with a C or better grade (a C– or Passed grade is not acceptable) taken at another institution; or scoring 5, 6, or 7 on an International Baccalaureate Higher Level Examination.

Students whose native language is not English may need to take English Composition 1A, 1B, and 2I before enrolling in a Writing I course. All courses in the sequence must be passed with a C or better grade (a C– or Passed grade is not acceptable).

Writing II

The Writing II requirement must be satisfied within the first seven terms of enrollment by completing one course from a faculty-approved list of Writing II courses and available on the student Degree Audit; see the Registrar’s Writing II requirement web page for details. Courses that satisfy the requirement are denoted by a W suffix and are impacted. The course must be completed with a C or better grade (a C– or Passed grade is not acceptable).

Applicable Writing II courses may also fulfill preparation for the major or minor requirements and, if approved for general education (GE) credit, may also fulfill a GE requirement.

Transfer students with 90 or more units who have completed the Intersegmental General Education Transfer Curriculum (IGETC) will have satisfied the Writing I, Writing II, and reciprocity requirements. No transfer student is admitted to the school without completing, with a C or better grade (a C– grade is not acceptable), a college-level writing course that Undergraduate Admission accepts as equivalent to English Composition 3.

Quantitative Reasoning Requirement

Students must demonstrate basic skills in quantitative reasoning. The requirement may be satisfied by completing one approved UCLA course (see list below) for a C or Passed or better grade (a C– or Not Passed grade is not acceptable).

The quantitative reasoning requirement may also be satisfied by achieving an SAT Reasoning Test Mathematics section score of 600 or better for exams taken January 2016 or earlier, or achieving an SAT Mathematics section score of 620 or better for exams taken March 2016 or later, or an SAT Subject Test in Mathematics score of 550 or better.

If approved for general education (GE) credit, applicable courses may also fulfill a GE requirement. Approved courses include:

- Biostatistics 100A, 100B
- Life Sciences 20, 30A, 30B, 40
- Mathematics 3A, 31A, 31AL
- Philosophy 31
- Political Science 6, 6R
- Program in Computing 10A, 10B, 10C
- Public Affairs 60
- Statistics 10, 12, 13

Foreign Language Requirement

Students may meet the foreign language requirement by scoring 3, 4, or 5 on the College Board Advanced Placement (AP) foreign language examination in Chinese, French, German, Italian, Japanese, or Spanish, or scoring 4 or 5 on the AP foreign language examination in Latin; presenting a UCLA foreign language proficiency examination score indicating competency through level three; or completing one college-level foreign language course equivalent to level three or above or American Sign Language 1, 2, and 3, or 8 at UCLA with a C or Passed or better grade. The foreign language requirement must be completed within the first six terms of enrollment.

International students may petition to use an advanced course in their native language for this requirement. Students whose entire secondary education has been completed in a language other than English may petition to be exempt from the foreign language requirement.

Transfer students with 90 or more units who have completed the Intersegmental General Education Transfer Curriculum (IGETC) will have satisfied the foreign language and reciprocity requirements.

Courses that may be used to fulfill this requirement are published on the Registrar’s foreign language requirement web page.

Diversity Requirement

The diversity requirement is predicated on the notion that students in music must be trained to understand the local, national, and global realities in which they make, understand, interpret, and teach music. Those realities include the multicultural, transnational, and global nature of contemporary society. To satisfy the requirement, students
must complete one course from the faculty-approved list of diversity courses (available in the Schedule of Classes, through degree audits, or in the Office of Student Affairs). The course must be taken for a letter grade, and students must receive a C or better grade (a C– or Passed grade is not acceptable).

Applicable courses may also fulfill major, minor, or elective requirements and, if approved for general education (GE) credit, may fulfill a GE requirement. As such, students are not required to complete an additional course to satisfy the diversity requirement.

General Education Requirements

General education (GE) is more than a checklist of required courses. It is a program of study that reveals to students the ways that research scholars in the arts, humanities, social sciences, and natural sciences create and evaluate new knowledge; introduces students to the important ideas and themes of human cultures; fosters appreciation for the many perspectives and diverse voices that may be heard in a democratic society; and develops the intellectual skills that give students the dexterity they need to function in a rapidly changing world.

This entails the ability to make critical and logical assessments of information, both traditional and digital; deliver reasoned and persuasive arguments; and identify, acquire, and use the knowledge necessary to solve problems.

<table>
<thead>
<tr>
<th>General Education Requirements</th>
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<tbody>
<tr>
<td><strong>Foundations of the Arts and Humanities</strong></td>
</tr>
<tr>
<td>Literary and Cultural Analysis .......................... 1 course</td>
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<tr>
<td>Philosophical and Linguistic Analysis ............ 1 course</td>
</tr>
<tr>
<td>Visual and Performance Arts Analysis and Practice 1 course</td>
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<tr>
<td><strong>Total = 15 units minimum</strong></td>
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<tr>
<td><strong>Foundations of Society and Culture</strong></td>
</tr>
<tr>
<td>Historical Analysis ............................. 1 course</td>
</tr>
<tr>
<td>Social Analysis .................................... 1 course</td>
</tr>
<tr>
<td>Third course from either subgroup .......... 1 course</td>
</tr>
<tr>
<td><strong>Total = 15 units minimum</strong></td>
</tr>
<tr>
<td><strong>Foundations of Scientific Inquiry</strong></td>
</tr>
<tr>
<td>Life Sciences/Physical Sciences ............... 2 courses</td>
</tr>
<tr>
<td>Two courses from either subgroup. If both courses are selected from the same subgroup, they must be from different departments.</td>
</tr>
<tr>
<td><strong>Total = 8 units minimum</strong></td>
</tr>
<tr>
<td><strong>Total GE ............... 8 courses/38 units minimum</strong></td>
</tr>
</tbody>
</table>

A Writing II course also approved for general education may be applied toward the relevant general education foundational area.

Foundations of Knowledge

General education courses are grouped into three foundational areas: Foundations of the Arts and Humanities, Foundations of Society and Culture, and Foundations of Scientific Inquiry.

Eight courses (38 units minimum) are required. A Writing II course also approved for general education may be applied toward the relevant general education foundational area.

Students who successfully complete a year-long GE cluster series fulfill the Writing II requirement and complete nearly 50 percent of their general education requirements. Students who do not complete the year-long GE cluster series must meet with a counselor in the Office of Student Services and Enrollment Management to determine applicable GE credit.

Courses listed in more than one category can fulfill GE requirements in only one of the categories.

Foundations of the Arts and Humanities

Three 5-unit courses, one from each subgroup. Courses required to satisfy the major or other courses taken in the major field may be used to satisfy this GE requirement:

- Literary and Cultural Analysis
- Philosophical and Linguistic Analysis
- Visual and Performance Arts Analysis and Practice

Courses in this area supply perspectives and intellectual skills necessary to comprehend and think critically about our situation in the world as human beings. In particular, courses furnish the basic means to appreciate and evaluate the ongoing efforts of humans to explain, translate, and transform their diverse experiences of the world through such media as language, literature, philosophical systems, images, sounds, and performances. The courses introduce students to the historical development and fundamental intellectual and ethical issues associated with the arts and humanities and may also investigate the complex relations between artistic and humanistic expression and other facets of society and culture.

Foundations of Society and Culture

Three 5-unit courses, one from each subgroup and a third course from either subgroup:

- Historical Analysis
- Social Analysis

Courses in this area introduce students to the ways in which humans organize, structure, rationalize, and govern their diverse societies and cultures over time. Courses focus on a particular historical question, societal problem, or topic of political and economic concern in an effort to demonstrate how issues are objectified for study, how data is collected
and analyzed, and how new understandings of social phenomena are achieved and evaluated.

Foundations of Scientific Inquiry
Two courses from either subgroup. If both courses are selected from the same subgroup, they must be from different departments:

- Life Sciences
- Physical Sciences

Courses in this area ensure that students gain a fundamental understanding of how scientists formulate and answer questions about the operation of both the physical and biological world. Courses also deal with some of the most important issues, developments, and methodologies in contemporary science, addressing such topics as the origin of the universe, environmental degradation, and the decoding of the human genome. Through lectures, laboratory experiences, writing, and intensive discussions, students consider the important roles played by the laws of physics and chemistry in society, biology, Earth and environmental sciences, and astrophysics and cosmology.

Foundations Course Lists
Creating and maintaining a general education curriculum is a dynamic process; consequently, courses are frequently added to the list. For the most current list of approved courses that satisfy the Foundations of Knowledge GE plan, consult with an academic counselor or see the master list.

Reciprocity with Other UC Campuses
Students who transfer to UCLA from other UC campuses and have met all GE requirements prior to enrolling at UCLA are not required to complete the Herb Alpert School of Music GE requirements. Written verification from the dean at the other UC campus is required. Verification letters should be sent to UCLA Herb Alpert School of Music, Office of Student Affairs, Box 957234, Los Angeles, CA 90095-7234.

Intersegmental General Education Transfer Curriculum
Transfer students from California community colleges have the option to fulfill UCLA lower-division GE requirements by completing the Intersegmental General Education Transfer Curriculum (IGETC) prior to transfer. The curriculum consists of a series of subject areas and types of courses that have been agreed on by the University of California and the California community colleges. Although GE or transfer core courses are degree requirements rather than admission requirements, students are advised to fulfill them prior to transfer. The IGETC significantly eases the transfer process, as all UCLA GE requirements are fulfilled when students complete the IGETC courses. Students who select the IGETC must complete it entirely before enrolling at UCLA. Otherwise, they must fulfill the Herb Alpert School of Music GE requirements.

Department Requirements
Departments generally set two types of requirements that must be satisfied for award of a degree: preparation for the major (lower-division courses) and the major (upper-division courses). Preparation for the major courses should be completed before beginning upper-division work.

Preparation for the Major
A major requires completion of a set of courses known as preparation for the major. Each department sets its own preparation for the major requirements; see Curricula and Courses.

The Major
A major is composed of at least 36 units.

Students must complete their major with a grade-point average of at least 2.0 (C) in all courses in order to remain in the major. Each course in the major department must be taken for a letter grade.

As changes in major requirements occur, students are expected to satisfy the new requirements insofar as possible. Hardship cases should be discussed with the department adviser, and petitions for adjustment should be submitted to the dean of the school when necessary.

Minors and Double Majors
Students may petition for a minor and/or double major on an individual basis. Students should contact the Office of Student Affairs for an outline of criteria required for the petition.

Policies and Regulations
Degree requirements are subject to policies and regulations, including the following:

Student Responsibility
Students should take advantage of academic support resources, but they are ultimately responsible for keeping informed of and complying with the rules, regulations, and policies affecting their academic standing.

Study List
Each term the study list must include from 12 to 20 units. The school has no provision for part-time enrollment. After
the first term, students may petition to carry more than 20 units if they have an overall grade-point average of 3.0 (B) or better and have attained at least a 3.0 (B) average in the preceding two terms with all courses passed. Students should contact the Office of Student Affairs no later than the end of the second week of instruction to petition for more than 20 units.

**Minimum Progress**

Students are expected to complete satisfactorily at least 40 units during any three consecutive terms in residence; they are placed on probation if they fail to pass these units. Students are subject to disqualification if they fail to pass at least 32 units in three consecutive regular terms in residence.

**Changing a Major**

Students in good academic standing who wish to change their major may petition to do so, provided they can complete the new major within the 216-unit limit and normal time to degree (12 terms for students who entered as freshmen; six terms for students who entered as transfers). Petitions must be submitted to and approved by the department or committee in charge of the new major. Admission to certain majors may be closed or restricted; changes are normally not permitted if students are on probation or have begun their last term.

**Concurrent Enrollment**

Enrollment at a non-UC institution or at UCLA Extension while enrolled at UCLA is not permitted.

**Credit Limitations**

The following credit limitations apply to all undergraduate students enrolled in the school:

**Advanced Placement Examinations**

Credit earned through the College Board Advanced Placement (AP) Examinations may be applied toward certain UC/school requirements. Consult with a counselor in the Office of Student Affairs to determine applicable credit. Portions of AP Examination credit may be evaluated by corresponding UCLA course numbers (e.g., French 4). If students take the equivalent UCLA course, unit credit for such duplication is deducted before graduation. See the school AP table for UCLA course equivalents.

**Graduate Courses**

Undergraduate students who wish to take courses numbered in the 200 series for credit toward a specific degree requirement must petition for advance approval of the department chair and dean of the school, and must meet specific qualifications. Courses numbered in the 400 and 500 series may not be applied toward the degree.

**Counseling Services**

The school offers advising, program planning in the major and general education requirements, and individual meetings with school and departmental counselors. For counseling information, contact the Office of Student Affairs, 1642 Schoenberg Music Building, 310-825-4761.

**Honors**

Undergraduate students who achieve scholastic distinction may qualify for the following honors and programs:

**Dean’s Honors**

The Dean’s Honors list recognizes high scholastic achievement in any one term. The following criteria are used to note Dean’s Honors on student records: a 3.948 grade-point average (GPA), with at least 12 letter-graded units. The minimum GPA required is subject to change on an annual basis. Students are not eligible for Dean’s Honors in any given term if they receive an Incomplete or a Not Passed (NP) grade, change a grade, or repeat a course. Dean’s Honors are automatically recorded on the transcript for the appropriate term.

**Latin Honors**

Latin Honors are awarded at graduation to students with superior grade-point averages. To be eligible, students must have completed 90 or more units for a letter grade at the University of California and must have attained an overall grade-point average (GPA) at graduation that places them in the top 20 percent of the school (GPA of 3.948 or better) for cum laude, the top 10 percent (GPA of 3.988 or better) for magna cum laude, or the top five percent (GPA of 3.994 or better) for summa cum laude. The minimum GPAs required are subject to change on an annual basis. Required GPAs in effect in the graduating year determine student eligibility. Students should contact the Office of Student Affairs or see the Registrar’s honors web page for the most current Latin honors calculations.

**Graduate Study**

The advanced degree programs offer graduate students unique research opportunities when combined with special resources, such as Young Research Library, Music Library special collections, and UCLA performance halls.
Fellowships, grants, and assistantships are available through the departments and the dean of the Division of Graduate Education.

Admission

In addition to requiring that applicants hold a bachelor’s degree from an accredited U.S. institution or an equivalent degree of professional title from an international institution, each department in the school has limitations and additional requirements. In general, samples of creative work (auditions, portfolios, computer programs, etc.) are required. Detailed information is available on individual department websites and on program requirements for UCLA graduate degrees.

For information on proficiency in English requirements for international graduate students, see Graduate Admission in Graduate Study.

Degree Requirements

Requirements to fulfill each degree objective vary according to the degree and the department. For complete degree requirements, see program requirements for UCLA graduate degrees.

John E. Anderson Graduate School of Management

Antonio E. Bernardo, PhD, Dean

In today’s rapidly changing global marketplace, it is essential that professional managers be conversant with the latest concepts and principles of management. At the UCLA John E. Anderson Graduate School of Management, which is consistently ranked among the best such schools in the nation, students prepare to become first-rate managers with both specialized skills and broad understanding of the general economic, business, and managerial environment. This background enables them to become effective and efficient directors of organizations and people whether they are in the private, public, or not-for-profit sector.

Specifically, the Anderson Graduate School of Management offers the business community a wide range of higher education programs that furnish state-of-the-art information in a variety of fields. Through its faculty, the school advances the art and science of management by engaging in fundamental and cutting-edge research in all fields of management, and by educating scholars who can continue to create this new knowledge.

Students come from diverse professional and educational backgrounds and seek equally diverse personal and professional goals. Whether they pursue the professional MBA or a PhD in Management, they graduate with a broad understanding of people and organizations and with a sound technical background in the economic and mathematical concepts of management planning and decision making.

The school offers a variety of programs leading to graduate degrees at the master’s and doctorate levels. These include a professional Master of Business Administration (MBA), Master of Science (MS) in Business Analytics, and a Master of Financial Engineering (MFE); as well as three Master of Business Administration (MBA) programs for working professionals: the Fully Employed MBA program for mid-level and emerging senior leaders, and the 22-month Executive MBA program and the UCLA-NUS Global Executive MBA program in partnership with the National University of Singapore (NUS) Business School designed for senior-level managers and executives. A PhD in Management is also offered, as are certificate executive programs, research conferences, and seminars for experienced managers.

The school offers an undergraduate minor in Accounting. It also offers an interdisciplinary undergraduate minor in Entrepreneurship in conjunction with the College of Letters and Science, designed for students interested in new business ventures, business development, and entrepreneurial ideas; see the Entrepreneurship minor for details. Several undergraduate courses in management are also offered. Enrollment in these courses, although open to all UCLA students who have completed the requisites, is limited.

Degrees and Programs

The Anderson Graduate School of Management offers the following degrees and undergraduate minors:

- Master of Business Administration
- Executive Master of Business Administration
- Fully Employed Master of Business Administration
- Global Executive Master of Business Administration for Asia Pacific GEMBA—dual degree program with National University of Singapore
- Business Analytics MS
- Management MS, CPhil, PhD
- Master of Financial Engineering

Concurrent Degree Programs

Master of Business Administration/Computer Science MS
Undergraduate Minors

Accounting
Entrepreneurship

Executive Education

Founded in 1954, UCLA Anderson Executive Education offers innovative learning solutions that focus on leadership, management, and strategy to meet the unique business objectives of individual executives and leading organizations worldwide. A wide array of custom and open-enrollment programs are offered annually to leaders of today across all delivery platforms including in-person, live-online, and blended formats.

Research Centers

Eight interdisciplinary research centers supply valuable resources that support school programs: Center for Global Management (CGM); Center for Management of Enterprise in Media, Entertainment, and Sports (MEMES); Easton Technology Management Center; Harold and Pauline Price Center for Entrepreneurship and Innovation; Laurence and Lori Fink Center for Finance; Morrison Center for Marketing and Data Analytics; UCLA Anderson Forecast; and Ziman Center for Real Estate.

Outreach Programs

A wide range of outreach programs—such as the Entrepreneurship Bootcamp for Veterans with Disabilities; Leaders in Sustainability Certificate Program; Management Development for Entrepreneurs (MDE); Impact@Anderson; Office of Equity, Diversity, and Inclusion; and Riordan Programs—offer many teaching, research, and service resources to UCLA, Los Angeles, and beyond.

Jonathan and Karin Fielding School of Public Health

Ronald S. Brookmeyer, PhD, Dean

Fielding School of Public Health
16-035 Center for Health Sciences
310-825-5524
Student Services e-mail

The UCLA Jonathan and Karin Fielding School of Public Health is home to one of the brightest and most diverse public health student bodies in the U.S., with over 800 students hailing from 27 countries. The Fielding School of Public Health has five academic departments—Biostatistics, Community Health Sciences, Environmental Health Sciences, Epidemiology, and Health Policy and Management—and offers the Bachelor of Arts, Bachelor of Science, Doctor of Philosophy, Master of Data Science in Health, Master of Healthcare Administration, Master of Public Health, and Master of Science degrees. Additionally, concurrent and articulated degree programs and certificates enable students to gain specialized knowledge in areas such as global health, population and reproductive health, environmental health, and health care management and leadership. Students also have access to a wide range of local and global hands-on training opportunities that provide the skills needed to move public health evidence to action. The mission of the Fielding School of Public Health is to enhance the public’s health by training future leaders and health professionals from diverse backgrounds, conducting innovative research, translating research into policy and practice, and serving local communities and those of the nation and the world.

The Fielding School of Public Health is among the top ten public health schools in the country, and offers superior public health training and real-world experience. School classrooms and laboratories are located in the Center for Health Sciences (CHS) shared with the Geffen School of Medicine, School of Dentistry, and School of Nursing, and just steps away from its science facilities and schools of engineering, law, management, and public affairs.

Los Angeles is a unique setting to address public health challenges confronting the global community. Los Angeles County has the largest population of any county in the U.S., and is one of the most populous metropolitan areas in the world. Its nearly 10 million residents represent more than 140 cultures and speak an estimated 224 languages.
Students at the Fielding School of Public Health learn from and collaborate with around 200 faculty members who are renowned leaders, experts and innovators in our community and at the state, national, and international level. The faculty not only teach tomorrow’s public health practitioners and educators, but they create new knowledge in the field, contribute their expertise to legislators and public health leaders, prevent disease, and create programs that save millions of lives worldwide.

Departments
The school offers graduate programs leading to both academic and professional degrees in five departments. The Department of Biostatistics develops statistical and analytical techniques for public health use. The Department of Community Health Sciences addresses behaviors that prevent disease and enhance health; health problems of high-risk groups (women, children, the aged, the poor, the disadvantaged, and racial and ethnic minorities); health education and promotion; public health policy; community nutrition; and international health. The Department of Environmental Health Sciences elucidates health hazards in the general environment and in the workplace. The Department of Epidemiology is concerned with the nature, extent, and distribution of disease and health in populations. The Department of Health Policy and Management deals with the organization, financing, delivery, quality, and distribution of health care services. The school also administers an interdepartmental degree program in molecular toxicology. See Curricula and Courses for more information on each department.

Degrees and Programs
The Fielding School of Public Health offers the following degrees and undergraduate minor:

- Biostatistics MPH, MS, PhD
- Community Health Sciences MPH, MS, PhD
- Environmental Health Sciences MPH, MS, PhD
- Epidemiology MPH, MS, PhD
- Executive Master of Public Health
- Health Management MPH
- Health Policy MPH
- Health Policy and Management MS, PhD
- Master of Data Science in Health
- Master of Healthcare Administration
- Master of Public Health
- Master of Public Health for Health Professionals
- Molecular Toxicology PhD

Public Health BA, BS

Articulated Degree Programs
- Master of Public Health/Doctor of Medicine
- Master of Public Health/Latin American Studies MA

Concurrent Degree Programs
- Community Health Sciences MPH/Master of Urban and Regional Planning
- Environmental Health Sciences MPH/Master of Urban and Regional Planning
- Master of Public Health/African Studies MA
- Master of Public Health/Asian American Studies MA
- Master of Public Health/Juris Doctor
- Master of Public Health/Master of Business Administration
- Master of Public Health/Master of Public Policy
- Master of Public Health/Master of Social Welfare

Undergraduate Minor
- Public Health

Undergraduate Admission

Admission as a Freshman
Freshmen are admitted with a declared pre-major in the College of Letters and Science. See Undergraduate Majors under Public Health in Curricula and Courses for information on applying to the major.

Admission as a Junior
Transfer students are admitted directly to the Fielding School of Public Health.

Undergraduate Degree Requirements
Students must satisfy UC requirements, school requirements, and major requirements for the Bachelor of Arts or Bachelor of Science degree.

University Requirements
The University of California has two requirements that undergraduate students must satisfy to graduate: Entry-Level Writing or English as a Second Language, and American History and Institutions. Students who do not satisfy the Entry-Level Writing requirement prior to enrollment must pass an approved course or other program prescribed
by their UC campus of residence. Only after satisfying the Entry-Level Writing requirement can they take an English composition course for transfer credit after enrolling at UCLA. See Degree Requirements in Undergraduate Study for details.

School Requirements
There are seven requirements that must be satisfied for award of a degree.

Unit Requirement
Students must satisfactorily complete for credit a minimum of 180 units for the bachelor’s degree. At least 60 of the 180 units must be upper-division courses numbered 100 through 199. A maximum of 216 units is permitted. Advanced Placement Examination and International Baccalaureate Examination (transfer) credits are not counted toward the unit maximum.

Scholarship Requirement
Students must earn at least a 2.0 (C) grade-point average (GPA) in all courses undertaken at UCLA to receive a bachelor’s degree. Students must earn a cumulative 2.0 GPA as well as a 2.0 GPA in preparation for the major and the major.

<table>
<thead>
<tr>
<th>Degree Requirements</th>
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<tbody>
<tr>
<td><strong>University Requirements</strong></td>
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<tr>
<td>1. Entry-Level Writing or English as a Second Language</td>
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<td>2. American History and Institutions</td>
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<tr>
<td><strong>School Requirements</strong></td>
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<tr>
<td>1. Unit</td>
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<tr>
<td>2. Scholarship</td>
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<td>3. Academic Residence</td>
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<td>4. Writing Requirement</td>
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<td>Writing I</td>
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<td>Writing II</td>
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<tr>
<td>5. Quantitative Reasoning</td>
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<td>6. Diversity</td>
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<td>7. General Education</td>
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<tr>
<td>Foundations of Arts and Humanities</td>
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<tr>
<td>Foundations of Society and Culture</td>
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<tr>
<td>Foundations of Scientific Inquiry</td>
</tr>
<tr>
<td><strong>Major Requirements</strong></td>
</tr>
<tr>
<td>1. Preparation for the Major</td>
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<tr>
<td>2. The Major</td>
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</tbody>
</table>

Courses that do not satisfy specific UC, school, or major requirements are referred to as electives and can be used to meet the minimum unit requirement for graduation.

Academic Residence Requirement
Thirty-five of the final 45 units completed for the bachelor’s degree must be earned while in residence at the school.

Students enrolled in the Education Abroad Program (EAP) must satisfy the residence requirement by earning 35 of their final 90 units in residence at the school.

Writing Requirement
Students must complete the UC Entry-Level Writing or English as a Second Language (ESL) requirement prior to completing the school writing requirement.

Students admitted to the school are required to complete a two-term writing requirement—Writing I and Writing II. Two courses in English composition are required for graduation. Both courses must be taken for letter grades, and students must receive a C or better grade in each (a C– grade is not acceptable).

Writing I
The Writing I requirement must be satisfied within the first three terms of enrollment by completing English Composition 3, 3D, 3DX, 3E, or 3SL with a C or better grade (a C– or Passed grade is not acceptable).

The Writing I requirement may also be satisfied by scoring 4 or 5 on one of the College Board Advanced Placement Examinations in English; completing a course equivalent to English Composition 3 with a C or better grade (a C– or Passed grade is not acceptable) taken at another institution; or scoring 5, 6, or 7 on an International Baccalaureate Higher Level Examination.

Students whose native language is not English may need to take English Composition 1A, 1B, and 2I before enrolling in a Writing I course. All courses in the sequence must be passed with a C or better grade (a C– or Passed grade is not acceptable).

Qualifying examination scores and courses are determined by the school Faculty Executive Committee.

Writing II
The Writing II requirement must be satisfied within seven terms of enrollment by completing one course from a faculty-approved list of Writing II courses; see the Registrar’s Writing II requirement web page for details. Courses that satisfy the requirement are denoted by a W suffix and are impacted. The course must be completed with a C or better grade (a C– or Passed grade is not acceptable).

Applicable Writing II courses may also fulfill preparation for the major requirements and, if approved for general education (GE) credit, may also fulfill a GE requirement.
Transfer students with 90 or more units who have completed the Intersegmental General Education Transfer Curriculum (IGETC) will have satisfied the Writing I, Writing II, and reciprocity requirements. No transfer student is admitted to the school without completing, with a C or better grade (a C– grade is not acceptable), a college-level writing course that Undergraduate Admission accepts as equivalent to English Composition 3.

Quantitative Reasoning Requirement

The quantitative reasoning requirement may be satisfied by completing one approved UCLA course (see list below) or an equivalent course within the first seven terms of enrollment. The course must be taken for a letter grade, and students must receive a C or better grade (a C– grade is not acceptable).

The requirement may also be satisfied by achieving an SAT Reasoning Test Mathematics Section score of 600 or better for exams taken January 2016 or earlier, or achieving an SAT Mathematics section score of 620 or better for exams taken March 2016 or later, or an SAT Subject Test in Mathematics score of 550 or better, or an ACT Mathematics Test score of 26 or better. Approved UCLA courses and examinations, and qualifying scores, are determined by the school Faculty Executive Committee.

Applicable courses may also fulfill preparation for the major requirements and, if approved for general education (GE) credit, may fulfill a GE requirement. Applicable courses may also fulfill major, minor, or elective requirements, and if approved for general education (GE) credit, may fulfill a GE requirement. A list of approved courses is available in the Schedule of Classes.

Diversity Requirement

The diversity requirement may be satisfied by completing one course from the faculty-approved list of courses. The course must be taken for a letter grade, and students must receive a C or better grade (a C– grade is not acceptable). Applicable courses may also fulfill major, minor, or elective requirements, and if approved for general education (GE) credit, may fulfill a GE requirement. A list of approved courses is available in the Schedule of Classes.

General Education Requirements

General education (GE) is more than a checklist of required courses. It is a program of study that reveals to students the ways that research scholars in the arts, humanities, social sciences, and natural sciences create and evaluate new knowledge; introduces students to the important ideas and themes of human cultures; fosters appreciation for the many perspectives and diverse voices that may be heard in a democratic society; and develops the intellectual skills that give students the dexterity they need to function in a rapidly changing world.

This entails the ability to make critical and logical assessments of information, both traditional and digital; deliver reasoned and persuasive arguments; and identify, acquire, and use the knowledge necessary to solve problems.

Applicable courses may also fulfill major, minor, or elective requirements and, if approved for diversity or writing, may fulfill the diversity requirement and/or Writing II requirement.

### General Education Requirements

<table>
<thead>
<tr>
<th>Foundations of the Arts and Humanities</th>
<th>1 course</th>
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<tbody>
<tr>
<td>Literary and Cultural Analysis</td>
<td></td>
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<tr>
<td>Philosophical and Linguistic Analysis</td>
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<tr>
<td>Visual and Performance Arts Analysis and Practice</td>
<td>1 course</td>
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| Total = 15 units minimum |

<table>
<thead>
<tr>
<th>Foundations of Society and Culture</th>
<th>1 course</th>
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<tbody>
<tr>
<td>Historical Analysis</td>
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<tr>
<td>Social Analysis</td>
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<tr>
<td>Third course from either subgroup</td>
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</tbody>
</table>

| Total = 15 units minimum |

<table>
<thead>
<tr>
<th>Foundations of Scientific Inquiry</th>
<th>2 courses</th>
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</thead>
<tbody>
<tr>
<td>Life Sciences</td>
<td></td>
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<tr>
<td>Physical Sciences</td>
<td></td>
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</table>

| One of the four courses must be 5 units and carry laboratory credit. Other courses in the subgroups may be 4 units. |

| Total = 17 units minimum |

| Total GE = 10 courses/47 units minimum |
Foundations of Knowledge

General education courses are grouped into three foundational areas: Foundations of the Arts and Humanities, Foundations of Society and Culture, and Foundations of Scientific Inquiry.

Ten courses (47 units minimum) are required. GE-approved Writing II courses may fulfill an appropriate foundational area. See the foundational area descriptions below for a breakdown of courses required.

Students who successfully complete a year-long GE cluster series fulfill the Writing II requirement, complete 40 percent of their general education requirements, and receive laboratory/demonstration credit where appropriate.

Courses listed in more than one category can fulfill GE requirements in only one of the categories.

Foundations of the Arts and Humanities

Three 5-unit courses, one from each subgroup:

- Literary and Cultural Analysis
- Philosophical and Linguistic Analysis
- Visual and Performance Arts Analysis and Practice

Courses in this area supply perspectives and intellectual skills necessary to comprehend and think critically about our situation in the world as human beings. In particular, courses furnish the basic means to appreciate and evaluate the ongoing efforts of humans to explain, translate, and transform their diverse experiences of the world through such media as language, literature, philosophical systems, images, sounds, and performances. Courses introduce students to the historical development and fundamental intellectual and ethical issues associated with the arts and humanities, and may also investigate the complex relations between artistic and humanistic expression and other facets of society and culture.

Foundations of Society and Culture

Three 5-unit courses, one from each subgroup and a third course from either subgroup:

- Historical Analysis
- Social Analysis

Courses in this area introduce students to the ways in which humans organize, structure, rationalize, and govern their diverse societies and cultures over time. Courses focus on a particular historical question, societal problem, or topic of political and economic concern in an effort to demonstrate how issues are objectified for study, how data is collected and analyzed, and how new understandings of social phenomena are achieved and evaluated.

Foundations of Scientific Inquiry

Four courses, two from each subgroup. One 5-unit course from either subgroup must include laboratory credit. Other courses in the subgroups may be 4 units:

- Life Sciences
- Physical Sciences

Courses in this area ensure that students gain a fundamental understanding of how scientists formulate and answer questions about the operation of both the physical and biological world. Courses also deal with some of the most important issues, developments, and methodologies in contemporary science, addressing such topics as the origin of the universe, environmental degradation, and the decoding of the human genome. Through lectures, laboratory experiences, writing, and intensive discussions, students consider the important roles played by the laws of physics and chemistry in society, biology, Earth and environmental sciences, and astrophysics and cosmology.

Foundations Course Lists

Creating and maintaining a general education curriculum is a dynamic process; consequently, courses are frequently added to the list. For the most current list of approved courses that satisfy the Foundations of Knowledge GE plan, contact an academic adviser or see the master list.

Reciprocity with Other UC Campuses

Students who transfer to UCLA from other UC campuses and have met all GE requirements prior to enrolling at UCLA are not required to complete the school GE requirements. Written verification from the dean at the other UC campus is required. Consult with a school adviser regarding eligibility for this option.

Intersegmental General Education Transfer Curriculum

Transfer students from California community colleges have the option to fulfill UCLA lower-division GE requirements by completing the Intersegmental General Education Transfer Curriculum (IGETC) prior to transfer. The curriculum consists of a series of subject areas and types of courses that have been agreed on by the University of California and the California community colleges. Although GE or transfer core courses are degree requirements rather than admission requirements, students are advised to fulfill them prior to transfer. The IGETC significantly eases the transfer process, as all GE requirements are fulfilled when students complete the IGETC courses.
Major Requirements

Two types of requirements must be satisfied for the award of a degree: preparation for the major (lower-division courses) and the major (upper-division courses).

Preparation for the Major

Admission to the majors requires an application with documented progress toward completing preparation for the major requirements. Students may elect to declare a Public Health pre-major in preparation for an application for admission to the program. See Undergraduate Majors under Public Health in Curricula and Courses for details.

The Major

Major in the school consist of a group of coordinated upper-division courses of at least 40 units, but no more than 72 units.

Double Majors

Double majors in the Fielding School and other academic units are not permitted.

Minors

Students admitted to the Public Health majors may petition to add a minor provided they can complete the requirements within 216 units.

See Undergraduate Minors and Specializations in Majors and Degrees; descriptions are in Curricula and Courses.

Policies and Regulations

Degree requirements are subject to policies and regulations, including the following:

Student Responsibility

Students should take advantage of academic support resources, but they are ultimately responsible for keeping informed of and complying with the rules, regulations, and policies affecting their academic standing.

Study List

The study list is a record of classes that a student is taking for a particular term. Each term the study list must include from 15 to 20 units. The school has no provision for part-time enrollment. After the first term, students may petition to enroll in more than 20 units (up to 30 units maximum) if they have an overall grade-point average of 3.0 (B) or better and have attained at least a 3.0 (B) grade-point average in the preceding term with all courses passed. Excess units petitions must be filed and approved by the Undergraduate Student Services Office no later than the end of the third week of instruction.

Minimum Progress

Students are expected to complete satisfactorily at least 36 units in any three consecutive terms while in residence; they are placed on probation if they fail to pass these units. They are subject to dismissal if they fail to pass at least 32 units in three consecutive regular terms while in residence.

Changing a Major

Admitted Public Health majors may petition to change from the BA to the BS (or BS to BA). Petitions must be submitted to the Undergraduate Student Services Office for consideration. Public Health majors in good academic standing who wish to change to a major outside the school must consult with the department or committee in charge of the desired major. Admission to certain majors may be closed or restricted. Changes are not normally permitted if students are not in good academic standing or have begun their last term.

Students who fail to attain a grade-point average of 2.0 (C) in preparation for the major or major courses may be denied the privilege of entering or continuing in that major.

Re-entering Students and Their Majors

Students returning to UCLA to resume their studies after an absence must consult with an academic adviser for assistance.

Concurrent Enrollment

Enrollment at a non-UC institution or UCLA Extension while enrolled at UCLA is not permitted except in extraordinary circumstances. No credit is given for courses taken concurrently elsewhere without the approval of the school.

Credit Limitations

The following credit limitations apply to all undergraduate students. In many cases, units are not deducted until the final term before graduation. Students with questions should consult with an academic adviser.

Transfer students with credit from other institutions (advanced standing credit) receive a Degree Audit from Undergraduate Admission indicating the transferable units from former institutions; however, the following credit limitations may reduce the total number of transferred units that apply toward the degree in the school. Consult with an adviser about these limitations.
Community College/Lower Division Transfer Limitation
After completing 105 quarter units toward the degree, students are allowed no further unit credit for courses completed at a community college.

Physical Education
No more than 4 units in physical education activities courses may be applied toward the bachelor’s degree.

Upper-Division Tutorials
No more than 8 units of credit may be taken per term in upper-division tutorials numbered 195 through 199, and a maximum of 32 units may be applied toward the degree. All courses numbered 199 must be taken for a letter grade.

Graduate Courses
Undergraduate students who wish to take courses numbered in the 200 series for credit toward a specific degree requirement must petition for advance approval of the program chair. Courses numbered in the 300, 400, and 500 series are not open for credit to undergraduate students.

Academic Advising Services
The Fielding School of Public Health offers advising, program planning in the major and general education requirements, and individual meetings with school advisers. For advising information, contact the Undergraduate Student Services Office.

Honors
School undergraduate students who achieve scholastic distinction may qualify for the following honors and programs.

School Honors
The highest academic recognition the Fielding School confers on its undergraduate students is School Honors, which is awarded to graduating seniors who successfully complete the School Honors program. Students are awarded School Honors or School Highest Honors at graduation.

Dean’s Honors
The Dean’s Honors list recognizes high scholastic achievement in any one term. The following criteria are used to note Dean’s Honors on student records: a 3.915 grade-point average (GPA), with at least 12 letter-graded units. The minimum GPA required is subject to change on an annual basis. Students are not eligible for Dean’s Honors in any given term if they receive an Incomplete or a Not Passed (NP) grade, change a grade, or repeat a course. Dean’s Honors are automatically recorded on the transcript for the appropriate term.

Latin Honors
Students who have achieved scholastic distinction may be awarded the bachelor’s degree with Latin honors. To be eligible, students must have completed 90 or more units for a letter grade at the University of California and must have attained an overall grade-point average (GPA) at graduation that places them in the top 20 percent of school graduates (GPA of 3.915 or better) for cum laude, the top 10 percent (GPA of 3.965 or better) for magna cum laude, or the top five percent (GPA of 3.985 or better) for summa cum laude. Coursework taken on the Education Abroad Program is applied toward Latin honors at graduation. The minimum GPAs required are subject to change on an annual basis. Required GPAs in effect in the graduating year (fall, winter, spring, summer) determine student eligibility. Students should consult their Degree Audits, or the Registrar’s honors web page, for the most current Latin honors calculations.

Graduate Study

Admission
The admissions criteria established by the university requires that an applicant hold a bachelor’s degree from a regionally accredited institution, comparable in standard and content to a bachelor’s degree from the University of California, with an overall scholastic average of B (3.0 on a 4.0 scale) or better—or its equivalent if the letter grade system is not used.

An international student whose post-secondary education is completed outside of the U.S. is expected to hold a degree with above-average scholarship from a university or university-level institution.

Applicants must submit their application to both the centralized Schools of Public Health Application Service (SOPHAS) and UCLA Division of Graduate Education. For additional admission requirements, see the school application web page.

Degree Requirements
Specific degree requirements vary according to the department and program. Refer to program requirements for UCLA graduate degrees.

Research Centers
The field of public health addresses a wide range of issues, making it a natural for interdisciplinary collaboration. UCLA faculty members and students reach beyond traditional
The Research

The Bixby Center on Population and Reproductive Health are sponsored by or associated with the Fielding School of Public Health.

Biobehavioral Assessment and Research Center

The Biobehavioral Assessment and Research Center (BARC) promotes research on high impact science that the National Institute of Health (NIH) has identified as high-priority areas of public health research. With a team of multidisciplinary investigators, BARC utilizes and develops innovative biobehavioral and technological approaches that integrate behavioral measures/markers into intervention studies, prevention trials, and clinical science. BARC also supports incorporation of clinical and basic biomarkers into behavioral research and prevention science.

Bixby Center on Population and Reproductive Health

The Bixby Center on Population and Reproductive Health was established in 2001 at the Fielding School as the result of a generous gift from the Fred H. Bixby Foundation, and has grown since then with the support from additional Bixby Foundation gifts. The center promotes and supports research, training, and applied public health in the areas of population, reproductive health, and family planning. The principal focus is on reproductive health issues in developing countries, where population growth rates remain high and reproductive health services are poor or inaccessible. The center also works in reproductive health-related issues in the U.S.

Center for Cancer Prevention and Control Research

The Center for Cancer Prevention and Control Research is a joint program of the Fielding School and the Geffen School of Medicine’s Jonsson Comprehensive Cancer Center. Since its inception in 1976, the center has been recognized in Los Angeles community, nationally, and internationally. It conducts rigorous peer-reviewed research in three major program areas—the Healthy and At-Risk Populations Program, the Molecular Epidemiology Program, and the Patients and Survivors Program.

The Healthy and At-Risk Populations Program focuses on research in primary prevention and screening/early detection among healthy populations and persons at increased risk for developing cancer. Its research portfolio includes cancer epidemiology; gene-environment interaction; tobacco control; nutrition and exercise; and breast, cervix, prostate, and colon cancer screenings; as well as risk counseling and genetic testing of high-risk populations.

The Molecular Epidemiology Program focuses on primary prevention: examining environmental exposure (smoking, diet, infection, air pollution, etc.) and genetic susceptibility and cancer risk, as well as exploring gene-environmental interactions in cancer risk; secondary prevention: evaluating biological markers (somatic mutations and hypermethylation of tumor suppressor genes and oncogenes, gene copy numbers, etc.) for early detection, as well as intermediate markers as surrogate end-points for chemoprevention; and tertiary prevention: assessing blood and tissue-based biological markers (tumor markers, single nucleotide polymorphisms, etc.) for cancer prognosis and survival prediction.

The Patients and Survivors Program has as its major goal the reduction in avoidable morbidity and mortality among adult and pediatric patients with cancer and long-term survivors of cancer.

Center for Global and Immigrant Health

The last several years have seen major transformations in global public health, requiring major expansion and reconstruction of the international public health work force. Many emerging health problems require timely and sustained research efforts and require application of the best scientific knowledge and focused training and continuing education for the global public health work force.

The UCLA Center for Global and Immigrant Health was established in 2008. The center includes faculty from all of the departments in the Fielding School of Public Health as well as the schools of medicine, dentistry, and nursing, and the California Center for Population Research, all of whom have research or teaching interests in global and/or immigrant health. Participating faculty have active research collaborations in more than 50 countries throughout the world, and several work both with immigrant communities in California and in the countries of origin of these communities. The center offers a Certificate in Global Health available to students in any UCLA degree-granting graduate and professional program.

Center for Health Advancement

The UCLA Center for Health Advancement supplies enhanced analysis and evidence-based information to help policymakers decide which policies and programs can best improve health and reduce health disparities. The center analyzes a wide range of timely health improvement opportunities, identifying those supported by strong evidence. It presents and disseminates the results of these analyses in plain language to those who make and influence public- and private-sector policies and programs, and offers training and technical assistance to facilitate implementation of recommended approaches.
The center brings together faculty from multiple departments of the Fielding School and other UCLA schools with a wide range of subject matter and methodological expertise, including expertise in nonhealth sectors such as education, transportation, housing, environmental protection, community planning, agriculture, public welfare, and economics. It has strong collaborations with government public health agencies, foundations, academic institutions, and other not-for-profit organizations. Within the health sector, its work is focused on how alternative investments to wasteful expenditures in health care can yield greater returns.

Center for Health Policy Research

The UCLA Center for Health Policy Research is one of the nation’s leading health policy research centers and the premier source of health policy information for California. It was established in 1994 to apply the expertise of UCLA faculty members and researchers to meet national, state, and local community needs for health-policy-related research and information, and to accomplish three missions: conduct research on national, state, and local health policy issues; offer public service to policymakers and community leaders; and offer educational opportunities for graduate students and postdoctoral fellows.

Sponsored by the Fielding School and the Luskin School of Public Affairs, the center offers a collaborative health policy research environment for the leading professional schools and academic departments of UCLA. One major project is the California Health Interview Survey (CHIS), one of the largest health surveys in the nation. The center also sponsors major public service programs supported by extramural grants.

Center for Healthcare Management

The Center for Healthcare Management brings together academic researchers, students, seasoned executives, practitioners, and other health experts, as well as interdisciplinary academic health care management resources to advance health care management. The center is committed to accomplish its mission to unite, inspire, and enrich interdisciplinary leadership that progresses health care management by pulling together the best minds from UCLA and from the broader community to improve the current state of applied research, knowledge, and practice; jointly exploring critical issues in the management of health care organizations; providing an academic home for leaders in the field to contribute career experience and mentorship; producing research that influences management practices and seeks on-the-ground health care management expertise to inform research questions; and creating a library of health care management cases, generated internally and fielded from outside UCLA, as a repository for internal use and external licensing.

Center for Healthier Children, Families, and Communities

The Center for Healthier Children, Families, and Communities (CHCFC) was established in 1995 to address some of the most challenging health and social problems facing children and families. The center’s mission is to improve society’s ability to provide children with the best opportunities for health and well-being, and the chance to assume productive roles within families and communities.

Through a unique interdisciplinary partnership—between UCLA departments including Psychology; schools including education, law, medicine, nursing, public affairs, and public health; and providers, community agencies, and affiliated institutions—a critical mass of expertise has been assembled. This allows CHCFC to conduct activities in five major areas: child health and social services; applied research; health and social service provider training; public policy research and analysis; and technical assistance and support to community providers, agencies, and policymakers.

Center for Healthy Climate Solutions

The UCLA Center for Healthy Climate Solutions focuses on protecting people and communities from the effects of climate change. The center equips decision makers with solutions that reduce inequities and benefit their economy, environment, and health. With their partners, the center uses evidence-based best practices that improve health and resilience, and for generations to come. Under the leadership of Dr. Jonathan Fielding and Professor Michael Jerrett, the C-Solutions team provides public health expertise to help communities put leading research and best practices to work. The center works with communities to implement solutions that provide health, economic, and environmental benefits. The center prioritizes those with highest need to help reduce health disparities and promote climate justice. C-Solutions works with local stakeholders, conduct in-depth interviews with policy leaders, and share their findings with partner communities. Through these methods, the center is fortifying its collective ability to adapt and respond to the dangers of climate change.

Center for LGBTQ Advocacy Research and Health

The UCLA Center for LGBTQ Advocacy, Research and Health, or C-LARAH (LARAH is derived from the Latin word hilaris, meaning cheerful), is dedicated to improving the health and well-being of sexual and gender minorities, and is committed to sharing expertise in public health, including epidemiological methods, developing and testing biobehavioral interventions, education and research training, program design and analysis, health policy initiatives and implementation science. The center works directly with
members of the lesbian, gay, bisexual, transgender, and queer (LGBTQ) community, and is able to draw upon expansive local and national relationships with state and local public health departments, academic researchers, health-care providers, community-based organizations, consumer groups, advocacy foundations, and funding agencies. Its familiarity and experience working with the LGBTQ community and allied organizations well-equips it to inform policymakers of the most effectual ways to reach members of this historically marginalized population and how to serve them holistically through all social determinants of health and justice.

**Center for Occupational and Environmental Health**

The California State Legislature mandated that the Center for Occupational and Environmental Health (COEH) be formed in 1978, when a group of chemical workers became sterile from exposure to the pesticide DBCP, a known carcinogen and reproductive toxin. With branches in northern and southern California, COEH trains occupational and environmental health professionals and scientists, conducts research, and offers services through consultation, education, and outreach. The centers constitute the first state-supported institutions to develop new occupational and environmental health leadership in the U.S.

The UCLA COEH branch is housed in the Center for Health Sciences and involves the schools of Public Health, Medicine, and Nursing. Specific COEH programs within the Fielding School include environmental chemistry, occupational/environmental epidemiology, occupational/environmental medicine, occupational ergonomics, occupational hygiene, toxicology, gene-environment interactions, psychosocial factors in the work environment, occupational health education, and pollution prevention.

**Center for Public Health and Disasters**

The Center for Public Health and Disasters was established in 1997 to address critical issues faced when a disaster impacts a community. The center promotes interdisciplinary efforts to reduce the health impacts of domestic, international, natural, and human-induced disasters. It facilitates dialog between public health and medicine, engineering, physical and social sciences, and emergency management. This unique philosophy is applied to the education and training of practitioners and researchers, collaborative interdisciplinary research, and service to the community. The multidisciplinary center staff and participating faculty members have backgrounds that include emergency medicine, environmental health sciences, epidemiology, gerontology, health services, social work, sociology, urban planning, and public health.

The center is one of 15 Academic Centers for Public Health Preparedness funded by the Centers for Disease Control and Prevention. The goal of these national centers is to improve competencies of front-line workers in public health to respond to public health threats.

**Center for the Study of Racism, Social Justice, and Health**

The Center for the Study of Racism, Social Justice, and Health is a multidisciplinary, collaborative research center housed in the Community Health Sciences Department leading the nation in conducting rigorous, community-engaged research to identify, investigate, and explain how racism and other social inequalities may influence the health of diverse local, national, and global populations. The center is distinguished from other disparities-related research units at UCLA by its primary focus on the health implications of racism for diverse populations. Public health is both an academic discipline and an applied one. Therefore, the center encourages the translation of research findings for use by public health professionals, community organizations, and policy makers in their ongoing health equity efforts. Many center affiliates are working to identify, investigate, and explain the specific mechanisms by which various forms of racism may produce local, national, or global health inequities. Others are advancing critical racial theories or building community partnerships to guide their anti-racism, health-equity work. The center supports a community of scholars engaged in cutting-edge research, scholarship, public health practice, and community engagement to tackle questions such as how racism affects the physical and mental health of diverse populations, what tools are available to improve the rigor with which researchers study racism and its relationship to health inequities, which intervention strategies most effectively address contribution of racism to specific health inequities, and what are effective ways to teach public health students about racism. Affiliates represent disciplines of public health, history, medicine, urban planning, sociology, and other areas.

**Southern California NIOSH Education and Research Center**

The purposes of the Region IX Southern California NIOSH Education and Research Center are to educate professionals in the various disciplines of occupational health and safety; offer continuing education for professionals and others in occupational safety and health fields; proliferate occupational health and safety activity through outreach to regional institutions and organizations; foster research on issues important to occupational health and safety; be an occupational health and safety resource to organizations and agencies that need its expertise; facilitate marshaling of
community resources to address and solve occupational health and safety problems; respond through educational programs and research to the changing range of occupational safety and health problems; and educate nonacademic stakeholders including business, labor, and vulnerable worker populations.

The characteristics of the center are embodied in a coordinated, interdisciplinary set of professional education, continuing education, research, and outreach activities that have a positive impact on the regional and national occupational health and safety practice.

The center has five programs at UCLA, one at UC Irvine, and two centerwide programs. The UCLA programs are Industrial Hygiene, Occupational and Environmental Health Nursing, Center Administration and Planning, Continuing Education, and Outreach. UC Irvine hosts the Occupational Medicine Program.

UCLA Kaiser Permanente Center for Health Equity

Academic studies and current events have converged to highlight the magnitude of potentially preventable health disparities among various population groups, and the urgency of addressing these disparities. The UCLA Kaiser Permanente Center for Health Equity identifies, investigates, and addresses these differences in health status and disease burden. A key feature of the center is its heavy focus on community-based intervention research to mitigate observed disparities.

The center aims to advance understanding of health disparities across the lifespan and to foster multidisciplinary research to improve the health of underserved communities. With focus on Los Angeles county, the center facilitates community and academic partnerships in research, trains new investigators in health disparities research, and assists community partners in implementing effective programs and advocating for effective policies to reduce disparities. The center also endeavors to erode the barriers preventing more effective collaboration with local health departments and other key community partners engaged in the practice of public health. It is a collaborative center without walls that includes associates from academia, government, foundations, and private/nonprofit organizations.

World Policy Analysis Center

The World Policy Analysis Center aims to improve the quantity and quality of comparative data available to policymakers, citizens, civil society, and researchers around the world on policies affecting human health, development, well-being, and equity. To date, the research team has gathered detailed information on public policies in all UN member states—including labor laws, poverty reduction policies, education policies, and constitutional rights—with the goals of increasing access to this data and translating research findings into policies and programs at the global, national, and local levels. The center is committed to enhancing global health and public policy research—and policy capacity—across universities, governments, and international organizations.

Meyer and Renee Luskin School of Public Affairs

Anastasia Loukaitou-Sideris, PhD, Interim Dean
Luskin School of Public Affairs
3250 Public Affairs Building
310-206-8858

Founded in 1994, the UCLA Meyer and Renee Luskin School of Public Affairs incorporates best practices in scholarship, research, and teaching in the fields of policymaking, social work, and urban and regional planning. The unique intersection of these disciplines within one school allows for academic cross-collaboration, and a graduate and undergraduate education that values perspectives at both the macro- and micro-organizational levels. Graduates of the master’s and doctorate degree programs are well prepared to take leadership roles and effect change as practitioners, researchers, and policymakers in public, private, and nongovernmental sectors. The undergraduate major offers students a rigorous conceptual and empirical foundation that prioritizes capacity for action by students exhibiting high motivations for public service and social change. Faculty members are actively engaged in research that addresses pressing national and regional issues including immigration, drug policy, prison reform, health care financing, transportation and the environment, national security, economic development, and the aging U.S. and world population.

Departments

The school comprises three academic departments—Public Policy, Social Welfare, and Urban Planning—and faculty members from such diverse disciplines as economics, geography, history, law, management, and political science. The school trains policy professionals, planners, and social workers for public, private, and nongovernment service; conducts research on significant regional, national, and international issues with a strong interdisciplinary and cross-cultural focus; and acts as a convener and catalyst for public dialog that engages people locally, nationally, and internationally.
Degrees and Programs

The Luskin School of Public Affairs offers the following degrees and undergraduate minors:

- Master of Public Policy
- Master of Social Welfare
- Master of Urban and Regional Planning
- Public Affairs BA
- Social Welfare PhD
- Urban Planning PhD

Concurrent Degree Programs

- Master of Public Policy/Doctor of Medicine
- Master of Public Policy/Juris Doctor
- Master of Public Policy/Master of Business Administration
- Master of Public Policy/Master of Public Health
- Master of Public Policy/Master of Social Welfare
- Master of Social Welfare /Asian American Studies MA
- Master of Social Welfare /Juris Doctor
- Master of Social Welfare /Master of Public Health
- Master of Urban and Regional Planning/Juris Doctor
- Master of Urban and Regional Planning/Latin American Studies MA
- Master of Urban and Regional Planning/Master of Architecture
- Master of Urban and Regional Planning/Master of Business Administration
- Master of Urban and Regional Planning/Master of Public Health

Undergraduate Minors

- Gerontology
- Public Affairs
- Urban and Regional Studies

Obtain brochures about the school undergraduate programs from the department office, 3343 Public Affairs Building, or see school minors.

The school also offers a wide array of undergraduate courses in public affairs. Enrollment in these courses is open to all undergraduate students during the second enrollment pass. Most classes are restricted to students pursuing the BA in Public Affairs during the first pass.

Undergraduate Admission

Admission as a Freshman

Freshmen are admitted with a declared pre-major in the College of Letters and Science. See Public Affairs BA in Curriculum and Courses for information on applying to the major.

Admission as a Junior

Transfer students are admitted directly to the Luskin School of Public Affairs.

Undergraduate Degree Requirements

Students must satisfy UC requirements, school requirements, and major requirements for the Bachelor of Arts degree.

University Requirements

The University of California has two requirements that undergraduate students must satisfy to graduate: Entry-Level Writing or English as a Second Language, and American History and Institutions. Students who do not satisfy the Entry-Level Writing requirement prior to enrollment must pass an approved course or other program prescribed by their UC campus of residence. Only after satisfying the Entry-Level Writing requirement can they take an English composition course for transfer credit after enrolling at UCLA. See Degree Requirements in Undergraduate Study for details.

School Requirements

There are eight requirements that must be satisfied for the award of the degree.

Unit Requirement

Students must satisfactorily complete for credit a minimum of 180 units for the bachelor’s degree. At least 60 of the 180 units must be upper-division courses numbered 100 through 199. A maximum of 216 units is permitted. Students with Advanced Placement Examination or International Baccalaureate Examination (transfer) credit may exceed the unit maximum by the amount of that credit.

After 216 quarter units, enrollment may not normally be continued in the school without special permission from the dean.
Scholarship Requirement
Students must earn at least a 2.0 (C) grade-point average (GPA) in all courses undertaken at UCLA to receive a bachelor's degree.

Students must also earn a 2.0 GPA in the major and satisfy both the course and scholarship requirements for the major, including preparation for the major.

Academic Residence Requirement
Students are in residence while enrolled and attending classes at UCLA with a declared major in the Luskin School of Public Affairs. Of the last 45 units completed for the bachelor’s degree, 35 units must be earned while in residence at the school. A minimum of 24 upper-division units must be completed in the major while in residence at the school.

Students enrolled in the Education Abroad Program (EAP) must satisfy the residence requirement by earning 35 of their final 90 units, including the final 12 units, in residence at the school.

Writing Requirement
Students must complete the UC Entry-Level Writing or English as a Second Language (ESL) requirement prior to completing the school writing requirement.

Students admitted to the school are required to complete a two-term writing requirement—Writing I and Writing II. Two courses in English composition are required for graduation. Both courses must be taken for letter grades, and students must receive a C or better grade in each (a C– grade is not acceptable).

Writing I
The Writing I requirement must be satisfied within the first three terms of enrollment by completing English Composition 3, 3D, 3DX, 3E, or 3SL with a C or better grade (a C– or Passed grade is not acceptable).

The Writing I requirement may also be satisfied by scoring 4 or 5 on one of the College Board Advanced Placement Examinations in English; completing a course equivalent to English Composition 3 with a C or better grade (a C– or Passed grade is not acceptable) taken at another institution; or scoring 5, 6, or 7 on an International Baccalaureate Higher Level Examination.

Students whose native language is not English may need to take English Composition 1A, 1B, and 2I before enrolling in a Writing I course. All courses in the sequence must be passed with a C or better grade (a C– or Passed grade is not acceptable).

Qualifying examination scores and courses are determined by the school Faculty Executive Committee.

Writing II
The Writing II requirement must be satisfied within seven terms of enrollment by completing one course from a faculty-approved list of Writing II courses; see the Registrar's Writing II requirement web page for details. Courses that satisfy the requirement are denoted by a W suffix and are impacted. The course must be completed with a C or better grade (a C– or Passed grade is not acceptable).

Applicable Writing II courses may also fulfill preparation for the major requirements and, if approved for general education (GE) credit, may also fulfill a GE requirement.

Transfer students with 90 or more units who have completed the Intersegmental General Education Transfer Curriculum (IGETC) will have satisfied the Writing I, Writing II, and reciprocity requirements. No transfer student is admitted to the school without completing, with a C or better grade (a C– grade is not acceptable), a college-level writing course that Undergraduate Admission accepts as equivalent to English Composition 3.

Quantitative Reasoning Requirement
The quantitative reasoning requirement may be satisfied by completing one approved UCLA course (see list below) or
Courses that may be used to fulfill this requirement are published on the Registrar's foreign language requirement web page.

Diversity Requirement

The diversity requirement may be satisfied by completing one course from the faculty-approved list of courses. Courses used to satisfy the diversity requirement are approved by the school Faculty Executive Committee. The course must be taken for a letter grade, and students must receive a C or better grade (a C– grade is not acceptable). Applicable courses may also fulfill major, minor, or elective requirements and, if approved for general education (GE) credit, may fulfill a GE requirement. A list of approved courses is available in the Schedule of Classes.

General Education Requirements

General education (GE) is more than a checklist of required courses. It is a program of study that reveals to students the ways that research scholars in the arts, humanities, social sciences, and natural sciences create and evaluate new knowledge; introduces students to the important ideas and themes of human cultures; fosters appreciation for the many perspectives and diverse voices that may be heard in a democratic society; and develops the intellectual skills that give students the dexterity they need to function in a rapidly changing world.

This entails the ability to make critical and logical assessments of information, both traditional and digital; deliver reasoned and persuasive arguments; and identify, acquire, and use the knowledge necessary to solve problems.

Applicable courses may also fulfill major, minor, or elective requirements and, if approved for diversity or writing, may fulfill the diversity requirement and/or Writing II requirement.

Foundations of Knowledge

General education courses are grouped into three foundational areas: Foundations of the Arts and Humanities, Foundations of Society and Culture, and Foundations of Scientific Inquiry.

Ten courses (47 units minimum) are required. GE-approved Writing II courses may fulfill an appropriate foundational area. See the foundational area descriptions below for a breakdown of courses required.

Students who successfully complete a year-long GE cluster series fulfill the Writing II requirement, complete 40 percent of their general education requirements, and receive laboratory/demonstration credit where appropriate.

Foreign Language Requirement

The foreign language requirement may be satisfied by one of the following methods: scoring 3, 4, or 5 on the College Board Advanced Placement (AP) foreign language examination in Chinese, French, German, Italian, Japanese, or Spanish, or scoring 4 or 5 in Latin; presenting a UCLA foreign language departmental examination score indicating competency through level three; or completing a college-level foreign language course equivalent to level three or above at UCLA with a C or Passed or better grade.

Transfer students with 90 or more units who have completed the Intersegmental General Education Transfer Curriculum (IGETC) will have satisfied the foreign language and reciprocity requirements.

Applicable courses may also fulfill preparation for the major requirements and, if approved for general education (GE) credit, may fulfill a GE requirement.

Transfer students with 90 or more units who have completed the Intersegmental General Education Transfer Curriculum (IGETC) will have satisfied the quantitative reasoning and reciprocity requirements. No transfer student is admitted to the school without completing, with a C or better grade (a C– grade is not acceptable), a college-level quantitative reasoning course that Undergraduate Admission accepts as equivalent to those approved by the school Faculty Executive Committee. Approved courses include

- Biostatistics 100A, 100B
- Life Sciences 20, 30A, 30B, 40
- Mathematics 3A, 31A, 31AL
- Philosophy 31
- Political Science 6, 6R
- Program in Computing 10A, 10B, 10C
- Public Affairs 60
- Statistics 10, 12, 13
## General Education Requirements

<table>
<thead>
<tr>
<th>Area</th>
<th>Requirement</th>
</tr>
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<tbody>
<tr>
<td><strong>Foundations of the Arts and Humanities</strong></td>
<td>- Literary and Cultural Analysis .................................................. 1 course</td>
</tr>
<tr>
<td></td>
<td>- Philosophical and Linguistic Analysis .......................................... 1 course</td>
</tr>
<tr>
<td></td>
<td>- Visual and Performance Arts Analysis and Practice ................................... 1 course</td>
</tr>
<tr>
<td></td>
<td>Total = 15 units minimum</td>
</tr>
<tr>
<td><strong>Foundations of Society and Culture</strong></td>
<td>- Historical Analysis ........................................................................... 1 course</td>
</tr>
<tr>
<td></td>
<td>- Social Analysis ................................................................................ 1 course</td>
</tr>
<tr>
<td></td>
<td>- Third course from either subgroup ................................................ 1 course</td>
</tr>
<tr>
<td></td>
<td>Total = 15 units minimum</td>
</tr>
<tr>
<td><strong>Foundations of Scientific Inquiry</strong></td>
<td>- Life Sciences ..................................................................................... 2 courses</td>
</tr>
<tr>
<td></td>
<td>- Physical Sciences ............................................................................... 2 courses</td>
</tr>
<tr>
<td></td>
<td>- One of the four courses must be 5 units and carry laboratory credit. Other courses in the subgroups may be 4 units.</td>
</tr>
<tr>
<td></td>
<td>Total = 17 units minimum</td>
</tr>
<tr>
<td><strong>Total GE</strong></td>
<td>10 courses/47 units minimum</td>
</tr>
</tbody>
</table>

Courses listed in more than one category can fulfill GE requirements in only one of the categories.

### Foundations of the Arts and Humanities

Three 5-unit courses, one from each subgroup:

- Literary and Cultural Analysis
- Philosophical and Linguistic Analysis
- Visual and Performance Arts Analysis and Practice

Courses in this area supply perspectives and intellectual skills necessary to comprehend and think critically about our situation in the world as human beings. In particular, courses furnish the basic means to appreciate and evaluate the ongoing efforts of humans to explain, translate, and transform their diverse experiences of the world through such media as language, literature, philosophical systems, images, sounds, and performances. Courses introduce students to the historical development and fundamental intellectual and ethical issues associated with the arts and humanities, and may also investigate the complex relations between artistic and humanistic expression and other facets of society and culture.

### Foundations of Society and Culture

Three 5-unit courses, one from each subgroup and a third course from either subgroup:

- Historical Analysis
- Social Analysis

Courses in this area introduce students to the ways in which humans organize, structure, rationalize, and govern their diverse societies and cultures over time. Courses focus on a particular historical question, societal problem, or topic of political and economic concern in an effort to demonstrate how issues are objectified for study, how data is collected and analyzed, and how new understandings of social phenomena are achieved and evaluated.

### Foundations of Scientific Inquiry

Four courses, two from each subgroup. One 5-unit course from either subgroup must include laboratory credit. Other courses in the subgroups may be 4 units:

- Life Sciences
- Physical Sciences

Courses in this area ensure that students gain a fundamental understanding of how scientists formulate and answer questions about the operation of both the physical and biological world. Courses also deal with some of the most important issues, developments, and methodologies in contemporary science, addressing such topics as the origin of the universe, environmental degradation, and the decoding of the human genome. Through lectures, laboratory experiences, writing, and intensive discussions, students consider the important roles played by the laws of physics and chemistry in society, biology, Earth and environmental sciences, and astrophysics and cosmology.

### Foundations Course Lists

Creating and maintaining a general education curriculum is a dynamic process; consequently, courses are frequently added to the list. For the most current list of approved courses that satisfy the Foundations of Knowledge GE plan, contact an academic adviser or see the [master list](#).

### Reciprocity with Other UC Campuses

Students who transfer to UCLA from other UC campuses and have met all GE requirements prior to enrolling at UCLA are not required to complete the school GE requirements. Written verification from the dean at the other UC campus is required. Consult with a school counselor regarding eligibility for this option.

### Intersegmental General Education Transfer Curriculum

Transfer students from California community colleges have the option to fulfill UCLA lower-division GE requirements by completing the Intersegmental General Education Transfer Curriculum (IGETC) prior to transfer. The curriculum consists of a series of subject areas and types of courses that have been agreed on by the University of California and the California community colleges. Although GE or transfer core courses are degree requirements rather than admission requirements, students are advised to fulfill them prior to transfer. The IGETC significantly eases the transfer process, as all GE requirements are fulfilled when students complete the IGETC courses.
Major Requirements

Two types of requirements must be satisfied for the award of a degree: preparation for the major (lower-division courses) and the major (upper-division courses). Departments set requirements for minors.

Preparation for the Major

Admission to the major requires completion of a set of courses known as preparation for the major. Applicants are admitted to pre-major status until requisite courses are satisfactorily completed. See the Public Affairs BA in Curricula and Courses.

The Major

A major consists of a group of coordinated upper-division courses and shall be designated as schoolwide, departmental, interdepartmental, or individual. Each course applied toward the major and preparation for the major must be taken for a letter grade unless otherwise stipulated.

A major consists of a minimum of 40 upper-division units. Students must complete their major with a scholarship grade-point average of at least 2.0 (C) in all courses in order to remain in the major.

As changes in major requirements occur, students are expected to satisfy the new requirements insofar as possible. Petitions for adjustment should be submitted to the dean of the school in hardship cases.

See the Public Affairs BA in Curricula and Courses for more details.

Minors

Students may petition for a minor offered by the school or one offered outside the school, provided they can complete the requirements within 216 units and are on track to graduate on time.

As changes in minor requirements occur, students are expected to satisfy the new requirements insofar as possible unless they have completed 50 percent of the required coursework for the minor at the time the new requirements go into effect. Petitions for adjustment should be submitted to the undergraduate program chair for a departmental minor and to the dean for a schoolwide minor.

For a list of minors and specializations, see Undergraduate Minors and Specializations; descriptions are in Curricula and Courses.

Policies and Regulations

Degree requirements are subject to policies and regulations, including the following:

Student Responsibility

Students should take advantage of academic support resources, but they are ultimately responsible for keeping informed of and complying with the rules, regulations, and policies affecting their academic standing.

Study List

The study list is a record of classes that a student is taking during a particular term. Each term, the study list must include from 12 to 19 units. After the first term, students may petition to enroll in more than 19 units if they have an overall grade-point average of 3.0 (B) and attained at least a 3.0 (B) grade-point average the preceding term with all courses passed.

First-term transfer students from any other UC campus may carry excess units on the same basis as students who have completed one or more terms at UCLA; however, they are not encouraged to do so.

Minimum Progress

Students are expected to complete satisfactorily at least 36 units in any three consecutive terms while in residence; they are placed on probation if they fail to pass these units. They are subject to dismissal if they fail to pass at least 32 units in three consecutive regular terms while in residence.

Changing a Major

Students in good academic standing who wish to change their major may petition to do so provided they can complete the new major within the 216-unit limit and are on track to graduate on time. Petitions must be submitted to and approved by the department or committee in charge of the new major. Admission to certain majors may be closed or restricted; changes are normally not permitted if students are on probation or have begun their last term.

Students who fail to attain a grade-point average of 2.0 (C) in preparation for the major or major courses may be denied the privilege of entering or continuing in that major.

Re-entering Students and Their Majors

Students returning to UCLA to resume their studies after an absence of several years may find their previous major area of study is no longer available. They must select a current
major in which to complete their studies. Consult with an academic adviser for assistance.

**Concurrent Enrollment**

Enrollment at a non-UC institution or UCLA Extension while enrolled at UCLA is not permitted except in extraordinary circumstances. No credit is given for courses taken concurrently elsewhere without the approval of the school.

**Credit Limitations**

The following credit limitations apply to all undergraduate students. In many cases, units are not deducted until the final term before graduation. Students with questions should consult with an academic adviser.

Transfer students with credit from other institutions (advanced standing credit) receive a Degree Audit from Undergraduate Admission indicating the transferable units from former institutions; however, the following credit limitations may reduce the total number of transferred units that apply toward the degree in the school. Consult with an adviser about these limitations.

**Upper-Division Tutorials**

No more than 8 units of credit may be taken per term in upper-division tutorials numbered 195 through 199. The total number of units allowed in such courses for a letter grade is 32; see the specific restrictions of each department.

**Graduate Courses**

Undergraduate students who wish to take courses numbered in the 200 series for credit toward a specific degree requirement must petition for advance approval of the department chair and the dean of the school. Courses numbered in the 300, 400, and 500 series may not be applied toward the degree.

**Academic Counseling Services**

The Luskin School of Public Affairs offers advising, program planning in the major and general education requirements, and individual meetings with school and departmental counselors. For counseling information, contact the Undergraduate Program Student Services Office, 3343 Public Affairs Building.

**Honors**

Undergraduate students who achieve scholastic distinction may qualify for the following honors and programs:

**Dean’s Honors**

The Dean’s Honors list recognizes high scholastic achievement in any one term. The following criteria are used to note Dean’s Honors on student records: a 3.938 grade-point average (GPA), with at least 12 letter-graded units. The minimum GPA required is subject to change on an annual basis. Students are not eligible for Dean’s Honors in any given term if they receive an Incomplete or a Not Passed (NP). Dean’s Honors are automatically recorded on the transcript for the appropriate term.

**Latin Honors**

Students who have achieved scholastic distinction may be awarded the bachelor’s degree with Latin honors. To be eligible, students must have completed 90 or more units for a letter grade at the University of California and must have attained an overall grade-point average at graduation that places them in the top 20 percent of the school graduates (GPA of 3.938 or better) for cum laude, the top 10 percent (GPA of 3.974 or better) for magna cum laude, or the top five percent (GPA of 3.993 or better) for summa cum laude. Coursework taken on the Education Abroad Program is applied toward Latin honors at graduation. The minimum GPAs required are subject to change on an annual basis. Required GPAs in effect in the graduating year (fall, winter, spring, summer) determine student eligibility. Students should consult their Degree Audits, or the Registrar’s Latin honors web page for the most current Latin honors calculations.

**Graduate Study**

**Admission**

In addition to requiring that applicants hold a bachelor’s degree from an accredited U.S. institution or an equivalent degree or professional title from an international institution, each department in the school has limitations and additional requirements. Individuals interested in concurrent degrees must be admitted to both programs. Detailed information can be found in program requirements for UCLA graduate degrees.

For information on proficiency in English requirements for international graduate students, see Graduate Admission in Graduate Study.

**Degree Requirements**

Requirements to fulfill each degree objective vary according to the degree and the department. For complete degree requirements, see program requirements for UCLA graduate degrees.
Research Centers
The school houses a number of research centers where faculty members from across campus pursue issues of mutual interest. In addition to their focus on practical policy problems, the research centers also offer opportunities for student financial aid in the form of research assistant positions, grants, and fellowships.

Center for Neighborhood Knowledge
The Center for Neighborhood Knowledge is dedicated to translating its research to inform actionable neighborhood-related policies and programs that contribute to positive social change. It specializes in empirical spatial analysis and emphasizes the study of diversity, differences, and disparities among neighborhoods; and explicitly covers immigrant enclaves, low-income neighborhoods, and minority communities. In response to the current public health crisis and racial climate, the center launched the COVID-19 Equity Research Initiative in March 2020 to analyze systemic inequality and the pandemic’s impact on the way we live, work, learn, shop, and socialize. One of the Initiative’s objectives is to produce timely research briefs, publicly accessible data, and mapping tools, all to inform public discussion on critical policy issues. The goal is to provide timely insights to policymakers, community stakeholders, and others who are addressing economic, social, and political disruptions, with the ultimate goal of ensuring a fair and just recovery for the most impacted communities.

Center for Policy Research on Aging
The Center for Policy Research on Aging (CPRA) was formed to address the significant issues of an aging society through policy analysis, dissemination of information, and technical assistance to the public and private sectors. The demographic challenges of a nation growing older and living longer force society to confront the roles of government and the private sector in serving the increasing number of elderly and their families. The center’s mission is to conduct research; inform policymakers; link communities to local, state, and federal governments; and foster collaboration among UCLA faculty members.

Institute of Transportation Studies
The UCLA Institute of Transportation Studies (ITS), one of the leading transportation policy research centers in the U.S., was created in 1992 to conduct research and furnish professional education on the social, economic, environmental, and cultural aspects of transportation policy. Each year ITS faculty members, students, and research staff collaborate on a wide array of transportation policy and planning studies, ranging from an analysis of the travel trends and transportation needs of immigrants and low-income workers to the testing and evaluation of innovative fare programs to increase public transit use.

Institute on Inequality and Democracy
The Institute on Inequality and Democracy, organized in 2016, advances radical democracy in an unequal world through research, critical thought, and alliances with social movements and racial justice activism. Institute programs and projects convene multiple disciplines, narrative forms, and styles of scholarship and practice, while focusing on four research priorities: housing justice, predatory financialization, policing and incarceration, and decolonizing the university. The Institute aims to analyze and transform the divides and dispossession of our times, in the university and in our cities, across the global south and global north.

Latino Policy and Politics Institute
The Latino Policy and Politics Institute (LPPI) is a comprehensive think tank that addresses the most critical domestic policy challenges facing Latinos and other communities of color in states and localities across the U.S. The initiative leverages UCLA’s cross-disciplinary strengths to create an enterprise-wide home for Latino social policy with expertise in over a dozen issue areas including civil rights, criminal justice, educational equity, health access, and voting and civic participation. The initiative fosters innovative research, leverages policy-relevant expertise, drives civic engagement, and nurtures a leadership pipeline to propel viable policy reforms that expand opportunity for all Americans.

Luskin Center for Innovation
The Luskin Center for Innovation (LCI) conducts rigorous research and timely outreach that informs environmental policies for the health of people and the planet. Center faculty, staff, and graduate student researchers evaluate existing and proposed environmental policies to assess their effectiveness, equity impacts, and potential to spur innovation. The center then shares research findings with community leaders and policymakers, who use LCI research to design evidence-based environmental policies. The center often focuses on California, the world’s fifth-largest economy, to support a model of environmental leadership that is relevant globally. Research programs include climate, energy, environmental equity, transportation, urban greening, and water—all linked by the theme of informing effective and equitable solutions to the environmental challenges of our time.
Ralph and Goldy Lewis Center for Regional Policy Studies

The Lewis Center for Regional Policy Studies was founded in 1989, with a $5 million endowment from Ralph and Goldy Lewis, to promote the multidisciplinary study, understanding, and solution of regional policy issues in California. Research projects cover welfare reform, housing, immigration, environment, health insurance, labor and employment, and transportation—with a specific interest on the policy impact on vulnerable populations as a through line.

UCLA Hub for Health Intervention, Policy and Practice

The UCLA Hub for Health Intervention, Policy and Practice (HHIPP) connects the academy, community, and policy-makers to address health disparities among diverse communities in Los Angeles and beyond. UCLA HHIPP engages community members in impactful, theory-driven and sustainable research that informs high-level policy and street-level social justice health outcomes. UCLA HHIPP’s work situates health policy within a social welfare and social justice framework. It espouses a broad definition of health and wellness with special consideration given to adverse social conditions, stigma, discrimination, poverty, racism, and homophobia.

School of the Arts and Architecture

Brett B. Steele, AA Dipl, Dean
School of the Arts and Architecture
8260 Broad Art Center
310-206-6465

The UCLA School of the Arts and Architecture plays a vital role in the cultural and artistic life of the campus and community. Courses and degree programs in four departments—Architecture and Urban Design, Art, Design|Media Arts, and World Arts and Cultures/Dance—offer students unparalleled opportunities to learn from faculty members who rank among the most innovative artists, designers, ethnographers, choreographers, architects, and arts culture and performance scholars of today.

Combining opportunities for hands-on study of creative practice with an academic foundation of the liberal arts, the school offers students the chance to develop an integrated and encompassing understanding of human creativity, the arts, and architecture. Its mission is to educate, empower, and inspire the next generation of citizens to serve as cultural and artistic leaders of the twenty-first century.

The School of the Arts and Architecture includes three public arts units, including the Center for the Art of Performance at UCLA, one of the largest and most diverse performing arts presenters in the nation; and two world-class museums: the UCLA Hammer Museum, which focuses on contemporary and emerging artists; and the Fowler Museum at UCLA, which focuses on tradition-based and contemporary arts of Africa, the Americas, Asia, and the Pacific. School teaching, learning, and public activities are organized across nine buildings and sites at the UCLA campus and beyond.

Departments and Programs

The four departments of the school are integral to the rich and varied cultural life of the UCLA campus. The Architecture and Urban Design Department offers students the opportunity to interrogate contemporary architectural and urban issues in one of the most culturally diverse cities in the world, and to propose possible futures with equal measures of expertise, optimism, and vision. The Art Department offers courses in the history, theory, and practice of visual art across a wide range of media, preparing students for a life of creative making and critical thinking in contemporary art and related fields. The Design|Media Arts Department focuses on digital media and offers a comprehensive, multidisciplinary approach that emphasizes individual exploration. The World Arts and Cultures/Dance Department offers innovative curricula focusing on the arts as expressions of culture, on the creation of dance and performance, and on fostering relationships between critical theory, activism, and artistic practice.

The school is also home to one undergraduate minor. Through its innovative interdisciplinary coursework and community arts programs, the Visual and Performing Arts Education (VAPAE) minor provides students with experiential opportunities to develop into teaching artists, introducing them to a range of possible careers in the arts while also bringing much needed arts education curricula to students throughout Los Angeles.

Information about academic programs is available from the Office of Student Services.

Teaching Credentials

Students interested in obtaining instructional credentials for California elementary and secondary schools should contact the Teacher Education Program, 1009 Moore Hall.
Degrees
The School of the Arts and Architecture offers the following degrees and undergraduate minor:

- Architectural Studies BA
- Architecture MA, PhD
- Architecture and Urban Design MS
- Art BA, MFA
- Choreographic Inquiry MFA
- Culture and Performance MA, PhD
- Dance BA
- Design|Media Arts BA, MFA
- Individual Field BA
- Master of Architecture
- World Arts and Cultures BA

Undergraduate Minor
- Visual and Performing Arts Education

Undergraduate Admission
In addition to the UC undergraduate application, departments require a supplemental application that involves auditions, portfolios, or evidence of creativity. Information about departmental requirements is available on the school prospective students web page.

Undergraduate Degree Requirements
Students must satisfy UC requirements, school requirements, and department requirements for the Bachelor of Arts degree.

University Requirements
The University of California has two requirements that undergraduate students must satisfy in order to graduate: Entry-Level Writing or English as a Second Language, and American History and Institutions. See Degree Requirements in Undergraduate Study for details.

Students enrolled in English Composition 1A, 1B, and 2I must take each course for a letter grade.

School Requirements
There are nine requirements that must be satisfied for award of a degree.

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Courses that do not satisfy specific UC, school, or department requirements are referred to as electives and can be used to meet the minimum unit requirement for graduation.

Unit Requirement
Students must complete for credit, with a passing grade, no fewer than 180 units and no more than 216 units, of which at least 64 units must be upper-division courses (numbered 100 through 199). Credit for upper-division tutorials numbered 195 through 199 is limited to a maximum of 8 units in a single term, and a maximum of 32 units total for a letter grade. Each major may have limitations on the number of upper-division tutorials and/or units that may be applied toward degree requirements.

Scholarship Requirement
A 2.0 (C) average is required in all work attempted at the University of California, exclusive of courses in UCLA Extension and those graded Passed/Not Passed. A 2.0 (C) grade-point average is also required in all upper-division courses in the major taken at the University of California, as well as in all courses applied toward the general education and UC requirements.

Academic Residence Requirement
Students are in residence while enrolled and attending classes at UCLA with a declared major in the School of the Arts and Architecture. Of the last 45 units completed for the
School of the Arts and Architecture / College and Schools / 141

A bachelor’s degree, 35 must be earned while in residence at the school. No more than 18 of the 35 units may be completed in UCLA Summer Sessions.

Courses offered by UCLA Extension may not be applied toward any part of the residence requirements.

Writing Requirement

Students must complete the UC Entry-Level Writing or English as a Second Language (ESL) requirement prior to completing the school writing requirements.

Students admitted to the school are required to complete a two-term writing requirement—Writing I and Writing II. The courses must be taken for a letter grade, and students must receive a C or better grade in each (a C– grade is not acceptable).

Writing I

The Writing I requirement must be satisfied within the first three terms of enrollment by completing English Composition 3, 3D, 3DX, 3E, or 3SL with a C or better grade (a C– or Passed grade is not acceptable).

The Writing I requirement may also be satisfied by scoring 4 or 5 on one of the College Board Advanced Placement Examinations in English; completing a course equivalent to English Composition 3 with a C or better grade (a C– or Passed grade is not acceptable) taken at another institution; or scoring 5, 6, or 7 on an International Baccalaureate Higher Level Examination.

Students whose native language is not English may need to take English Composition 1A, 1B, and 2I before enrolling in a Writing I course. All courses in the sequence must be passed with a C or better grade (a C– or Passed grade is not acceptable).

Writing II

The Writing II requirement must be satisfied within the first six terms of enrollment by completing one course from a faculty-approved list of Writing II courses and available on the student Degree Audit; see the Registrar’s Writing II requirement web page for details. Courses that satisfy the requirement are denoted by a W suffix and are impacted. The course must be completed with a C or better grade (a C– or Passed grade is not acceptable).

Applicable Writing II courses also approved for general education may fulfill the relevant general education foundational area.

Quantitative Reasoning Requirement

Students must demonstrate basic skills in quantitative reasoning. The requirement may be satisfied by completing one approved UCLA course (see list below) for a C or Passed or better grade (a C– or Not Passed grade is not acceptable), or an equivalent transfer course.

The quantitative reasoning requirement may also be satisfied by achieving an SAT Reasoning Test Mathematics section score of 600 or better for exams taken January 2016 or earlier, or achieving an SAT Mathematics section score of 620 or better for exams taken March 2016 or later, or an SAT Subject Test in Mathematics score of 550 or better, or an ACT mathematics exam score of 26 or better. Approved courses include

- Biostatistics 100A, 100B
- Life Sciences 20, 30A, 30B, 40
- Mathematics 3A, 31A, 31AL
- Philosophy 31
- Political Science 6, 6R
- Program in Computing 10A, 10B, 10C
- Public Affairs 60
- Statistics 10, 12, 13

Foreign Language Requirement

Students may meet the foreign language requirement by scoring 3, 4, or 5 on the College Board Advanced Placement (AP) foreign language examination in Chinese, French, German, Italian, Japanese, or Spanish, or scoring 4 or 5 on the AP foreign language examination in Latin; for languages other than Spanish and Portuguese, presenting a UCLA foreign language proficiency examination score indicating competency through level two; or completing one college-level foreign language course equivalent to level two or above at UCLA with a grade of Passed or C or better. Students who want to meet the foreign language requirement with Spanish, and do not have a qualifying AP score, must enroll in Spanish 2. Students who want to meet the foreign language requirement with Portuguese, and do not have a qualifying AP score, must enroll in Portuguese 2. The foreign language requirement must be completed within the first six terms of enrollment.

International students may petition to use an advanced course in their native language for this requirement. Students whose entire secondary education has been completed in a language other than English may petition to be exempt from the foreign language requirement.

Courses that may be used to fulfill this requirement are published on the Registrar’s foreign language requirement web page and are available on the student Degree Audit.
Upper-Division Nonmajor Requirement

Students are required to complete a minimum of 12 units of upper-division (100-level) nonmajor courses. Graduate (200-, 400-, and 500-level) courses may not be applied toward this requirement.

Diversity Requirement

The diversity requirement is predicated on the notion that students in the arts must be trained to understand the local, national, and global realities in which they make, understand, interpret, and teach the arts. Those realities include the multicultural, transnational, and global nature of contemporary society. The requirement may be satisfied by taking courses in any of three parts of the student’s overall program: general education courses, courses in the major, or upper-division nonmajor elective courses. As such, students are not required to complete an additional course to satisfy the diversity requirement. Courses satisfying this requirement consider intergroup dynamics along with such social dimensions as race, ethnicity, gender, socioeconomic background, religion, sexual orientation, age, and disability; and are relevant to the understanding of these dynamics in contemporary society and culture in the U.S. and around the world.

General Education Requirements

General education (GE) is more than a checklist of required courses. It is a program of study that reveals to students the ways that research scholars in the arts, humanities, social sciences, and natural sciences create and evaluate new knowledge; introduces students to the important ideas and themes of human cultures; fosters appreciation for the many perspectives and diverse voices that may be heard in a democratic society; and develops the intellectual skills that give students the dexterity they need to function in a rapidly changing world.

This entails the ability to make critical and logical assessments of information, both traditional and digital; deliver reasoned and persuasive arguments; and identify, acquire, and use the knowledge necessary to solve problems.

Foundations of Knowledge

General education courses are grouped into three foundational areas: Foundations of the Arts and Humanities, Foundations of Society and Culture, and Foundations of Scientific Inquiry.

Eight courses (38 units minimum) are required. A Writing II or diversity course also approved for general education may be applied toward the relevant general education foundational area.

Students who successfully complete a year-long GE cluster series fulfill the Writing II requirement and complete nearly 50 percent of their general education requirements. Students who do not complete the year-long GE cluster series must meet with an adviser in the Student Services Office to determine applicable GE credit.

Courses listed in more than one category can fulfill GE requirements in only one of the categories.

Foundations of the Arts and Humanities

Three 5-unit courses, one from each subgroup:

- Literary and Cultural Analysis
- Philosophical and Linguistic Analysis
- Visual and Performance Arts Analysis and Practice

Courses in this area supply perspectives and intellectual skills necessary to comprehend and think critically about our situation in the world as human beings. In particular, courses furnish the basic means to appreciate and evaluate the ongoing efforts of humans to explain, translate, and transform their diverse experiences of the world through such media as language, literature, philosophical systems, images, sounds, and performances. The courses introduce students to the historical development and fundamental intellectual and ethical issues associated with the arts and humanities and may also investigate the complex relations...
between artistic and humanistic expression and other facets of society and culture.

Foundations of Society and Culture
Three 5-unit courses, one from each subgroup and a third course from either subgroup:
- Historical Analysis
- Social Analysis

Courses in this area introduce students to the ways in which humans organize, structure, rationalize, and govern their diverse societies and cultures over time. Courses focus on a particular historical question, societal problem, or topic of political and economic concern in an effort to demonstrate how issues are objectified for study, how data is collected and analyzed, and how new understandings of social phenomena are achieved and evaluated.

Foundations of Scientific Inquiry
Two courses from either subgroup. If both courses are selected from the same subgroup, they must be from different departments:
- Life Sciences
- Physical Sciences

Courses in this area ensure that students gain a fundamental understanding of how scientists formulate and answer questions about the operation of both the physical and biological world. Courses also deal with some of the most important issues, developments, and methodologies in contemporary science, addressing such topics as the origin of the universe, environmental degradation, and the decoding of the human genome. Through lectures, laboratory experiences, writing, and intensive discussions, students consider the important roles played by the laws of physics and chemistry in society, biology, Earth and environmental sciences, and astrophysics and cosmology.

Foundations Course Lists
Creating and maintaining a general education curriculum is a dynamic process; consequently, courses are frequently added to the list. For the most current list of approved courses that satisfy the Foundations of Knowledge GE plan, consult with an academic adviser in the Office of Student Services, 2200 Broad Art Center, or see the master list.

Reciprocity with Other UC Campuses
Students who transfer to UCLA from other UC campuses and have met all GE requirements prior to enrolling at UCLA are not required to complete the School of the Arts and Architecture GE requirements. Written verification from the dean at the other UC campus is required. Verification letters should be sent to the UCLA School of the Arts and Architecture, Office of Student Services, Box 951620, Los Angeles, CA 90095-1620.

Intersegmental General Education Transfer Curriculum
Transfer students from California community colleges have the option to fulfill UCLA lower-division GE requirements by completing the Intersegmental General Education Transfer Curriculum (IGETC) prior to transfer. The curriculum consists of a series of subject areas and types of courses that have been agreed on by the University of California and the California community colleges. Although GE or transfer core courses are degree requirements rather than admission requirements, students are advised to fulfill them prior to transfer. The IGETC significantly eases the transfer process, as all UCLA GE requirements are fulfilled when students complete the IGETC courses. Students who select the IGETC must complete it entirely before enrolling at UCLA. Otherwise, they must fulfill the School of the Arts and Architecture GE requirements.

Department Requirements
Departments generally set two types of requirements that must be satisfied for award of a degree: preparation for the major (lower-division courses) and the major (upper-division courses). Preparation for the major courses should be completed before beginning upper-division work.

Preparation for the Major
A major requires completion of a set of courses known as preparation for the major. Each department sets its own preparation for the major requirements; see Curricula and Courses.

The Major
A major is composed of no fewer than 56 units, including at least 36 units of upper-division courses.

Students must complete their major with a scholarship grade-point average of at least 2.0 (C) in all courses in order to remain in the major. Each course in the major department must be taken for a letter grade.

As changes in major requirements occur, students are expected to satisfy the new requirements insofar as possible. Hardship cases should be discussed with the department adviser, and petitions for adjustment should be submitted to the dean of the school when necessary.

Any department offering a major may require a general final examination.

Individual Majors
Highly motivated students who believe that no single major accommodates their specific interests and goals may pro-
pose designing their own major. Proposals are prepared with faculty guidance and sponsorship, and must explain the intent concerning the anticipated program of study and reasons why the academic goals cannot be achieved within an existing major. Proposals must be submitted no later than the end of the sophomore year. Transfer students must complete at least one term of residency at UCLA before proposing an individual major. Students interested in designing an individual major should consult with the school director of student services, 2200 Broad Art Center.

Minors and Double Majors
Students may petition for a minor and/or double major on an individual basis. It is strongly recommended that students pursuing a minor or double major enroll in 15 to 20 units per term. Students should contact the Student Services Office for an outline of criteria required for the petition.

Policies and Regulations
Degree requirements are subject to policies and regulations, including the following:

Student Responsibility
Students should take advantage of academic support resources, but they are ultimately responsible for keeping informed of and complying with the rules, regulations, and policies affecting their academic standing.

Study List
Each term the study list must include from 12 to 20 units. The school has no provision for part-time enrollment. After the first term, students may petition to carry more than 20 units if they have an overall grade-point average of 3.0 (B) or better and have attained at least a 3.0 (B) grade-point average in the preceding term with all courses completed and passed. Students should contact the Student Services Office no later than the end of the second week of instruction to request additional units.

Minimum Progress
Students are expected to complete satisfactorily at least 36 units during any three consecutive terms in residence; they are placed on probation if they fail to pass these units. Students are subject to dismissal if they fail to pass at least 32 units in three consecutive regular terms in residence. In addition, students are held to the minimum grade-point average and progress toward degree policies described in Policies and Regulations.

Changing a Major
Students in good academic standing who wish to change their major may petition to do so, provided they can complete the new major within the 216-unit limit and normal time to degree (12 terms for students who entered as freshmen; six terms for students who entered as transfers). Petitions must be submitted to and approved by the department or committee in charge of the new major. Admission to certain majors may be closed or restricted. Changes are normally not permitted if students are on probation or have begun their last term.

Concurrent Enrollment
Enrollment at a non-UC institution or at UCLA Extension while enrolled at UCLA is not permitted.

Credit Limitations
The following credit limitations apply to all undergraduate students enrolled in the school:

Advanced Placement Examinations
Credit earned through the College Board Advanced Placement (AP) Examinations may be applied toward certain UC/school requirements. Consult with an adviser in the Student Services Office to determine applicable credit. Portions of AP Examination credit may be evaluated by corresponding UCLA course numbers. If students take the equivalent UCLA course, unit credit for such duplication is deducted before graduation. See the school AP table for UCLA course equivalents.

Graduate Courses
Undergraduate students who wish to take courses numbered in the 200 series for credit toward a specific degree requirement must petition for advance approval of the department chair and the dean of the school and must meet specific qualifications. Courses numbered in the 400 and 500 series may not be applied toward the degree.

Academic Counseling Services
The school offers advising, program planning in the major and general education requirements, and individual meetings with school and departmental advisers from matriculation through graduation. For academic counseling information, contact the Student Services Office, 2200 Broad Art Center.

Honors
Undergraduate students who achieve scholastic distinction may qualify for the following honors and programs:
Dean’s Honors
The Dean’s Honors list recognizes high scholastic achievement in any one term. The following criteria are used to note Dean’s Honors on student records: a 3.913 grade-point average (GPA), with at least 12 letter-graded units. The minimum GPA required is subject to change on an annual basis. Students are not eligible for Dean’s Honors in any given term if they receive an Incomplete or a Not Passed (NP) grade, change a grade, or repeat a course. Dean’s Honors are automatically recorded on the transcript for the appropriate term.

Latin Honors
Latin honors are awarded at graduation to students with superior grade-point averages. To be eligible, students must have completed 90 or more units for a letter grade at the University of California and must have attained an overall grade-point average at graduation that places them in the top 20 percent of the school (GPA of 3.913 or better) for cum laude, the top 10 percent (GPA of 3.955 or better) for magna cum laude, or the top five percent (GPA of 3.973 or better) for summa cum laude. The minimum GPAs required are subject to change on an annual basis. Required GPAs in effect in the graduating year determine student eligibility. Students should contact the Student Services Office or see the Registrar’s honors web page for the most current calculations of Latin honors.

Departmental Scholar Program
Exceptionally promising juniors or seniors may be nominated as Departmental Scholars to pursue bachelor’s and master’s degree programs simultaneously. Qualifications include completion of 24 courses (96 quarter units) at UCLA or the equivalent at a similar institution and the requirements in preparation for the major. Students must also have at least one term of coursework remaining at UCLA. To obtain both the bachelor’s and master’s degrees students must be provisionally admitted to the Division of Graduate Education, fulfill requirements for each program, and maintain a minimum 3.0 (B) average. No course may be used to fulfill requirements for both degrees. Interested students should consult their department well in advance of application dates for graduate admission. Students should contact the Student Services Office in 2200 Broad Art Center for details.

Graduate Study
The advanced degree programs offer graduate students unique research opportunities when combined with special resources, such as the Young Research Library, Arts Library special collections, and UCLA exhibit venues.

Fellowships, grants, and assistantships are available through the departments and the dean of the Division of Graduate Education.

Admission
In addition to requiring that applicants hold a bachelor’s degree from an accredited U.S. institution or an equivalent degree of professional title from an international institution, each department in the school has limitations and additional requirements. In general, samples of creative work (auditions, portfolios, computer programs, etc.) are required. Detailed information is available on individual department websites and in program requirements for UCLA graduate degrees.

For information on proficiency in English requirements for international graduate students, see Graduate Admission in Graduate Study.

Degree Requirements
Requirements to fulfill each degree objective vary according to the degree and the department. For complete degree requirements, see program requirements for UCLA graduate degrees.

Research Centers
Ten interdisciplinary research centers—the Art and Global Health Center, Art|Sci Center, cityLAB, Conditional Space Studio, Counterforce Lab, Experiential Technologies Center, Game Lab, Grunwald Center for the Graphic Arts, and xLAB—as well as the renowned Murphy Sculpture Garden—are part of the school. They offer students the opportunity to broaden and deepen their experience of the arts and architecture while at UCLA.

In addition to offering a rich and diverse environment on campus, the school encourages students to participate in community outreach programs designed around concerts, exhibitions, symposia, and dance productions presented in cooperation with groups throughout the greater Los Angeles area.

School of Dentistry
Paul H. Krebsbach, DDS, PhD, Dean
School of Dentistry
53-038 Dentistry
310-206-6063

The UCLA School of Dentistry has a national and international reputation for its teaching, research activities, and public service that prepare dental students for professional
careers dedicated to patient care, leadership, and service. The curriculum prepares students for changes in treatment modalities and health care delivery systems. From the moment training begins, students actively participate in preventive and clinical dental care and soon make valuable contributions to the clinical health team. Clinical instruction emphasizes the comprehensive care of patients. Students interact with their colleagues, faculty members, and dental auxiliary personnel in much the same way as they later will interact in a private or group practice.

Students may undertake programs designed to meet their special interests; mandatory selectives encourage advanced training in an area of particular interest and service learning. In addition to basic and applied research programs within the school, students participate in community service programs such as the Wilson-Jennings-Bloomfield UCLA Venice Dental Center. Graduate programs and resident specialty programs foster new lines of research that lead to better treatment options. An active continuing education program, directed by UCLA faculty members, offers a variety of hands-on courses for members of the dental profession and their auxiliaries.

Degrees and Programs
The School of Dentistry offers the following degrees:

Doctor of Dental Surgery
Oral Biology MS, PhD

Articulated Degree Programs
Oral Biology MS/Dentistry Certificate
Oral Biology MS/Doctor of Dental Surgery
Oral Biology PhD/Dentistry Certificate
Oral Biology PhD/Doctor of Dental Surgery

Concurrent Degree Programs
Doctor of Dental Surgery/Master of Business Administration

In addition, the school has a Professional Program for International Dentists (PPID) and a number of dental specialty residency programs. For information on the MS and PhD programs in Oral Biology, for which admission to the School of Dentistry is not required, see program requirements for UCLA graduate degrees.

Pre-Dental Programs
For details on pre-dental programs, see the school website.

DDS Degree
The UCLA dental curriculum leading to the degree of Doctor of Dental Surgery (DDS) is based on the quarter system. The course of study usually takes four academic years of approximately nine months each, with three required summer quarters between the first/second, second/third, and third/fourth years. The curriculum is designed to give students experience in all phases of clinical dentistry.

The dental curriculum consists of three principal areas: basic health sciences courses, didactic dental courses, and clinical experience. The first two years of the curriculum are chiefly devoted to didactic, laboratory, and general clinical coursework. The final two years emphasize training and instruction in clinical fields, including endodontics, fixed prosthodontics, operative dentistry, oral diagnosis and treatment planning, oral radiology, oral and maxillofacial surgery, anesthesiology, orthodontics, pediatric dentistry, periodontics, and removable prosthodontics.

Postgraduate Programs
Opportunities for postgraduate study include a one-year general practice residency program; a one-year advanced education in general dentistry program; a one-year residency in maxillofacial prosthodontics; a six-year oral and maxillofacial surgery residency training program; three-year prosthodontics, periodontics, orthodontics, and dental anesthesia programs; two-year programs in the specialties of endodontics, oral radiology, and orofacial pain and dysfunction; and a 26-month program in pediatric dentistry.

Information on postgraduate programs can be obtained by visiting the school post-DDS programs web page.

School of Education and Information Studies
Christina A. Christie, PhD, Dean
School of Education and Information Studies
1009 Moore Hall
310-825-8326
School e-mail

The School of Education and Information Studies (SE&IS) at UCLA is dedicated to inquiry, advancement of knowledge, improvement of professional practice, and service to the education and information professions. SE&IS develops future generations of scholars, teachers, information professionals, and institutional leaders. Its work is guided by the principles of individual responsibility and social justice, an ethic of caring, and commitment to the communities it serves.
Faculty members and students of SE&IS combine a passion and skill for cutting-edge research with an appreciation for its application in the widely diverse cultures and communities in which it exists. These communities serve as fertile training ground for students in all programs, through internships, research projects, summer placements, and teaching opportunities.

SE&IS is committed to the highest-quality professional education, and to the application of research and scholarship to the challenges facing a diverse and increasingly urbanized world.

Departments and Programs
The school consists of two departments—the Department of Education and the Department of Information Studies. Both have a clear and strong commitment to the pursuit of excellence in their research-oriented and professional degree programs.

Research-oriented master’s and doctoral programs prepare top scholars in their respective fields; while future librarians, archivists, information professionals, teachers, student affairs practitioners, school administrators, transformative coaches, and superintendents are prepared in the various professional master’s and doctorate degree programs. The UCLA Lab School (Corinne A. Seeds campus) and the UCLA Community School offer innovative educational programs for pre-K-6 and K-12 students, respectively. The Horace Mann UCLA Community School brings together resources to help young people thrive in the South Los Angeles area.

Degrees
The School of Education and Information Studies offers the following degrees and undergraduate minors:

- Doctor of Education
- Education MA, PhD
- Educational Administration Joint EdD with UC Irvine
- Education and Social Transformation BA
- Information Studies PhD
- Master of Education
- Master of Library and Information Science, accredited by American Library Association
- Special Education Joint PhD with California State University, Los Angeles

Articulated Degree Programs
- Master of Education/Latin American Studies MA
- Master of Library and Information Science/Latin American Studies MA

Concurrent Degree Programs
- Doctor of Education/Juris Doctor
- Education MA/Juris Doctor
- Education MA/Doctor of Medicine
- Education PhD/Juris Doctor
- Master of Education/Juris Doctor
- Master of Library and Information Science/Master of Business Administration

Credential Programs
The school offers two credential programs accredited by the California Commission on Teacher Credentialing:

- Preliminary Administrative Services Credential
- Teacher Credential

Undergraduate Minors
- Education Studies
- Information and Media Literacy

Undergraduate Admission
Students are admitted with a declared pre-major in the College of Letters and Science. See Entry to the Major under Education in Curricula and Courses for information on applying to the major.

Undergraduate Degree Requirements
Students must satisfy UC requirements, school requirements, and major requirements for the Bachelor of Arts degree.

University Requirements
The University of California has two requirements that undergraduate students must satisfy to graduate: Entry-Level Writing or English as a Second Language, and American History and Institutions. Students who do not satisfy the Entry-Level Writing requirement prior to enrollment must pass an approved course or other program prescribed by their UC campus of residence. Only after satisfying the Entry-Level Writing requirement can they take an English composition course for transfer credit after enrolling at UCLA. See Degree Requirements in Undergraduate Study for details.
School Requirements

There are eight requirements that must be satisfied for the award of the degree.

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Courses that do not satisfy specific UC, school, or major requirements are referred to as electives and can be used to meet the minimum unit requirement for graduation.

Unit Requirement

Students must satisfactorily complete for credit a minimum of 180 units for the bachelor’s degree. At least 60 of the 180 units must be upper-division courses numbered 100 through 199. A maximum of 216 units is permitted. Students with Advanced Placement Examination or International Baccalaureate Examination (transfer) credit may exceed the unit maximum by the amount of that credit.

After 216 quarter units, enrollment may not normally be continued in the school without special permission from the dean.

Credit for upper-division tutorials numbered 195 through 199 is limited to 16 units taken for a letter grade. No more than eight units of freshman seminars may be applied toward the degree.

Scholarship Requirement

Students must earn at least a 2.0 (C) grade-point average (GPA) in all courses undertaken at UCLA to receive a bachelor’s degree.

Students must also earn a 2.0 GPA in the major and satisfy both the course and scholarship requirements for the major, including preparation for the major.

Academic Residence Requirement

Students are in residence while enrolled and attending classes at UCLA with a declared major in the School of Education and Information Studies. Thirty-five of the final 45 units completed for the bachelor’s degree must be earned in residence at the school.

For students who transfer from another institution, from UCLA Extension, or from another College or school with senior standing, of the 35 units earned while in residence, 28 must be upper-division units, including 16 upper-division units in the major department. Courses in UCLA Extension may not be offered as part of this residence requirement.

Students enrolled in the Education Abroad Program (EAP) must satisfy the residence requirement by earning 35 of their final 90 units in residence at the school.

Writing Requirement

Students must complete the UC Entry-Level Writing or English as a Second Language (ESL) requirement prior to completing the school writing requirement.

Students admitted to the school are required to complete a two-term writing requirement—Writing I and Writing II. Two courses in English composition are required for graduation. Both courses must be taken for letter grades, and students must receive a C or better grade in each (a C– grade is not acceptable).

Writing I

The Writing I requirement must be satisfied within the first three terms of enrollment by completing English Composition 3, 3D, 3DX, 3E, or 3SL with a C or better grade (a C– or Passed grade is not acceptable).

The Writing I requirement may also be satisfied by scoring 4 or 5 on one of the College Board Advanced Placement Examinations in English, or completing a course equivalent to English Composition 3 with a C or better grade (a C– or Passed grade is not acceptable) taken at another institution.

Students whose native language is not English may need to take English Composition 1A, 1B, and 21 before enrolling in a Writing I course. All courses in the sequence must be passed with a C or better grade (a C– or Passed grade is not acceptable).

Qualifying examination scores and courses are determined by the school Faculty Executive Committee.
Writing II
The Writing II requirement must be satisfied within seven terms of enrollment by completing one course from a faculty-approved list of Writing II courses; see the Registrar’s Writing II requirement web page for details. Courses that satisfy the requirement are denoted by a W suffix and are impacted. The course must be completed with a C or better grade (a C– grade is not acceptable).

Applicable Writing II courses may also fulfill preparation for the major requirements and, if approved for general education (GE) credit, may also fulfill a GE requirement.

Transfer students with 90 or more units who have completed the Intersegmental General Education Transfer Curriculum (IGETC) will have satisfied the Writing I, Writing II, and reciprocity requirements. No transfer student is admitted to the school without completing, with a C or better grade (a C– grade is not acceptable), a college-level writing course that Undergraduate Admission accepts as equivalent to English Composition 3.

Quantitative Reasoning Requirement
The quantitative reasoning requirement may be satisfied by completing one approved UCLA course (see list below) or an equivalent course within the first seven terms of enrollment. The course must be taken for a letter grade, and students must receive a C or better grade (a C– grade is not acceptable).

The requirement may also be satisfied by achieving an SAT Reasoning Test Mathematics Section score of 600 or better for exams taken January 2016 or earlier, or achieving an SAT Mathematics section score of 620 or better for exams taken March 2016 or later, or an SAT Subject Test in Mathematics score of 550 or better, or an ACT Mathematics Test score of 26 or better. Approved UCLA courses and examinations, and qualifying scores, are determined by the school Faculty Executive Committee.

Applicable courses may also fulfill preparation for the major requirements and, if approved for general education (GE) credit, may fulfill a GE requirement.

Transfer students with 90 or more units who have completed the Intersegmental General Education Transfer Curriculum (IGETC) will have satisfied the quantitative reasoning and reciprocity requirements. No transfer student is admitted to the school without completing, with a C or better grade (a C– grade is not acceptable), a college-level quantitative reasoning course that Undergraduate Admission accepts as equivalent to those approved by the school Faculty Executive Committee. Approved courses include:

- Biostatistics 100A, 100B
- Life Sciences 20, 30A, 30B, 40
- Mathematics 3A, 31A, 31AL
- Philosophy 31
- Political Science 6, 6R
- Program in Computing 10A, 10B, 10C
- Public Affairs 60
- Statistics 10, 12, 13

Foreign Language Requirement
The foreign language requirement may be satisfied by one of the following methods: scoring 3, 4, or 5 on the College Board Advanced Placement (AP) foreign language examination in Chinese, French, German, Italian, Japanese, or Spanish, or scoring 4 or 5 in Latin; presenting a UCLA foreign language departmental examination score indicating competency through level three; or completing a college-level foreign language course equivalent to level three or above at UCLA with a C or Passed or better grade.

Transfer students with 90 or more units who have completed the Intersegmental General Education Transfer Curriculum (IGETC) will have satisfied the foreign language and reciprocity requirements.

International students may petition to use an advanced course in their native language for this requirement. Students whose entire secondary education has been completed in a language other than English may petition to be exempt from the foreign language requirement.

Courses that may be used to fulfill this requirement are published on the Registrar’s foreign language requirement web page.

Diversity Requirement
The diversity requirement may be satisfied by completing one course from the faculty-approved list of courses. Courses used to satisfy the diversity requirement are approved by the school Faculty Executive Committee. The course must be taken for a letter grade, and students must receive a C or better grade (a C– grade is not acceptable). Applicable courses may also fulfill major, minor, or elective requirements and, if approved for general education (GE) credit, may fulfill a GE requirement. A list of approved courses is available in the Schedule of Classes.

General Education Requirements
General education (GE) is more than a checklist of required courses. It is a program of study that reveals to students the ways that research scholars in the arts, humanities, social sciences, and natural sciences create and evaluate new knowledge; introduces students to the important ideas and themes of human cultures; fosters appreciation for the
many perspectives and diverse voices that may be heard in a democratic society; and develops the intellectual skills that give students the dexterity they need to function in a rapidly changing world.

This entails the ability to make critical and logical assessments of information, both traditional and digital; deliver reasoned and persuasive arguments; and identify, acquire, and use the knowledge necessary to solve problems.

Applicable courses may also fulfill major, minor, or elective requirements and, if approved for diversity or writing, may fulfill the diversity requirement and/or Writing II requirement.

Foundations of Knowledge

General education courses are grouped into three foundational areas: Foundations of the Arts and Humanities, Foundations of Society and Culture, and Foundations of Scientific Inquiry.

Ten courses (47 units minimum) are required. GE-approved Writing II courses may fulfill an appropriate foundational area. See the foundational area descriptions below for a breakdown of courses required.

Students who successfully complete a year-long GE cluster series fulfill the Writing II requirement, complete 40 percent of their general education requirements, and receive laboratory/demonstration credit where appropriate.

Courses listed in more than one category can fulfill GE requirements in only one of the categories.

<table>
<thead>
<tr>
<th>General Education Requirements</th>
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<tr>
<td><strong>Foundations of the Arts and Humanities</strong></td>
</tr>
<tr>
<td>Literary and Cultural Analysis ........................................1 course</td>
</tr>
<tr>
<td>Philosophical and Linguistic Analysis .................................1 course</td>
</tr>
<tr>
<td>Visual and Performance Arts Analysis and Practice 1 course</td>
</tr>
<tr>
<td>Total = 15 units minimum</td>
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<tr>
<td><strong>Foundations of Society and Culture</strong></td>
</tr>
<tr>
<td>Historical Analysis ..................................................1 course</td>
</tr>
<tr>
<td>Social Analysis ...........................................................1 course</td>
</tr>
<tr>
<td>Third course from either subgroup .................................1 course</td>
</tr>
<tr>
<td>Total = 15 units minimum</td>
</tr>
<tr>
<td><strong>Foundations of Scientific Inquiry</strong></td>
</tr>
<tr>
<td>Life Sciences ...............................................................2 courses</td>
</tr>
<tr>
<td>Physical Sciences ...........................................................2 courses</td>
</tr>
<tr>
<td>One of the four courses must be 5 units and carry laboratory credit. Other courses in the subgroups may be 4 units.</td>
</tr>
<tr>
<td>Total = 17 units minimum</td>
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<tr>
<td>Total GE ................ 10 courses/47 units minimum</td>
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</table>

Foundations of the Arts and Humanities

Three 5-unit courses, one from each subgroup:
- Literary and Cultural Analysis
- Philosophical and Linguistic Analysis
- Visual and Performance Arts Analysis and Practice

Courses in this area supply perspectives and intellectual skills necessary to comprehend and think critically about our situation in the world as human beings. In particular, courses furnish the basic means to appreciate and evaluate the ongoing efforts of humans to explain, translate, and transform their diverse experiences of the world through such media as language, literature, philosophical systems, images, sounds, and performances. Courses introduce students to the historical development and fundamental intellectual and ethical issues associated with the arts and humanities, and may also investigate the complex relations between artistic and humanistic expression and other facets of society and culture.

Foundations of Society and Culture

Three 5-unit courses, one from each subgroup and a third course from either subgroup:
- Historical Analysis
- Social Analysis

Courses in this area introduce students to the ways in which humans organize, structure, rationalize, and govern their diverse societies and cultures over time. Courses focus on a particular historical question, societal problem, or topic of political and economic concern in an effort to demonstrate how issues are objectified for study, how data is collected and analyzed, and how new understandings of social phenomena are achieved and evaluated.

Foundations of Scientific Inquiry

Four courses, two from each subgroup. One 5-unit course from either subgroup must include laboratory credit. Other courses in the subgroups may be 4 units:
- Life Sciences
- Physical Sciences

Courses in this area ensure that students gain a fundamental understanding of how scientists formulate and answer questions about the operation of both the physical and biological world. Courses also deal with some of the most important issues, developments, and methodologies in contemporary science, addressing such topics as the origin of the universe, environmental degradation, and the decoding of the human genome. Through lectures, laboratory experiences, writing, and intensive discussions, students consider the important roles played by the laws of physics and chemistry in society, biology, Earth and environmental sciences, and astrophysics and cosmology.
Foundations Course Lists
Creating and maintaining a general education curriculum is a dynamic process; consequently, courses are frequently added to the list. For the most current list of approved courses that satisfy the Foundations of Knowledge GE plan, contact an academic adviser or see the master list.

Reciprocity with Other UC Campuses
Students who transfer to UCLA from other UC campuses and have met all GE requirements prior to enrolling at UCLA are not required to complete the school GE requirements. Written verification from the dean at the other UC campus is required. Consult with a school counselor regarding eligibility for this option.

Intersegmental General Education Transfer Curriculum
Transfer students from California community colleges have the option to fulfill UCLA lower-division GE requirements by completing the Intersegmental General Education Transfer Curriculum (IGETC) prior to transfer. The curriculum consists of a series of subject areas and types of courses that have been agreed on by the University of California and the California community colleges. Although GE or transfer core courses are degree requirements rather than admission requirements, students are advised to fulfill them prior to transfer. The IGETC significantly eases the transfer process, as all GE requirements are fulfilled when students complete the IGETC courses. Two types of requirements must be satisfied for the award of a degree: preparation for the major (lower-division courses) and the major (upper-division courses). Departments set requirements for minors.

Major Requirements

Preparation for the Major
Admission to the major requires completion of a set of courses known as preparation for the major. Applicants are admitted to pre-major status until requisite courses are satisfactorily completed. See Education and Social Transformation BA in Curricula and Courses.

The Major
A major consists of a group of coordinated upper-division courses and shall be designated as schoolwide, departmental, interdepartmental, or individual. Each course applied toward the major and preparation for the major must be taken for a letter grade unless otherwise stipulated.

A major consists of a minimum of 40 upper-division units.

Students must complete their major with a scholarship grade-point average of at least 2.0 (C) in all courses in order to remain in the major.

See Education and Social Transformation BA in Curricula and Courses for more details.

Double Majors
Double majors between the school and other academic units are permitted. Students must be able to complete the proposed double major within the 216-unit limit.

Minors
Students may choose to pursue a minor to complement their major program of study. Minors consist of no fewer than seven courses (28 units) and no more than nine courses (36 units). Some minors also have admission requirements.

For a list of minors and specializations, see Undergraduate Minors and Specializations; descriptions are in Curricula and Courses.

Policies and Regulations
Degree requirements are subject to policies and regulations, including the following:

Student Responsibility
Students should take advantage of academic support resources, but they are ultimately responsible for keeping informed of and complying with the rules, regulations, and policies affecting their academic standing.

Study List
The study list is a record of classes that a student is taking during a particular term. Each term the study list must include from 12 to 20 units. After the first term, students may petition to enroll in more than 20 units if they have an overall grade-point average of 3.0 (B) and attained at least a 3.0 (B) grade-point average the preceding term with all courses passed.

First-term transfer students from any other UC campus may carry excess units on the same basis as students who have completed one or more terms at UCLA; however, they are not encouraged to do so.

Minimum Progress
Students are expected to complete satisfactorily at least 36 units in any three consecutive terms while in residence; they are placed on probation if they fail to pass these units. They are subject to dismissal if they fail to pass at least 32 units in three consecutive regular terms while in residence.
Changing a Major

Students in good academic standing who wish to change their major may petition to do so provided they can complete the new major within the 216-unit limit and are on track to graduate on time. Petitions must be submitted to and approved by the department or committee in charge of the new major. Admission to certain majors may be closed or restricted; changes are normally not permitted if students are on probation or have begun their last term.

Students who fail to attain a grade-point average of 2.0 (C) in preparation for the major or major courses may be denied the privilege of entering or continuing in that major.

Re-entering Students and Their Majors

Students returning to UCLA to resume their studies after an absence of several years may find their previous major area of study is no longer available. They must select a current major in which to complete their studies. Consult with an academic adviser for assistance.

Concurrent Enrollment

Enrollment at a non-UC institution or UCLA Extension while enrolled at UCLA is not permitted except in extraordinary circumstances. No credit is given for courses taken concurrently elsewhere without the approval of the school.

Credit Limitations

The following credit limitations apply to all undergraduate students. In many cases, units are not deducted until the final term before graduation. Students with questions should consult with an academic adviser.

Transfer students with credit from other institutions (advanced standing credit) receive a Degree Audit from Undergraduate Admission indicating the transferable units from former institutions; however, the following credit limitations may reduce the total number of transferred units that apply toward the degree in the school. Consult with an adviser about these limitations.

Upper-Division Tutorials

No more than 8 units of credit may be taken per term in upper-division tutorials numbered 195 through 199. The total number of units allowed in such courses for a letter grade is 16; see the specific restrictions of each department.

Graduate Courses

Undergraduate students who wish to take courses numbered in the 200 series for credit toward a specific degree requirement must petition for advance approval of the department chair and the dean of the school. Courses numbered in the 300, 400, and 500 series may not be applied toward the degree.

Academic Advising Services

The school offers advising, program planning in the major and general education requirements, and individual meetings with school and departmental counselors. For counseling information, contact the Office of Student Services, 1002 Moore Hall.

Honors

Undergraduate students who achieve scholastic distinction may qualify for the following honors and programs:

Dean’s Honors

The Dean’s Honors list recognizes high scholastic achievement in any one term. The following criteria are used to note Dean’s Honors on student records: a 3.915 grade-point average (GPA) in any one term, with at least 12 graded units. The minimum GPA required is subject to change on an annual basis. Students are not eligible for Dean’s Honors in any given term if they receive an Incomplete. Dean’s Honors are automatically recorded on the transcript for the appropriate term.

Latin Honors

Students who have achieved scholastic distinction may be awarded the bachelor’s degree with Latin honors. To be eligible, students must have completed 90 or more units for a letter grade at the University of California and must have attained an overall grade-point average at graduation that places them in the top 20 percent of the school (GPA of 3.915 or better) for cum laude, the top 10 percent (GPA of 3.965 or better) for magna cum laude, or the top five percent (GPA of 3.985 or better) for summa cum laude. Course-work taken on the Education Abroad Program is applied toward Latin honors at graduation. The minimum GPAs required are subject to change on an annual basis. Required GPAs in effect in the graduating year (fall, winter, spring, summer) determine student eligibility. Students should consult their Degree Audits, or the Registrar’s Latin honors web page for the most current Latin honors calculations.

Graduate Study

Admission

Admission criteria established by the UCLA Division of Graduate Education require a bachelor’s degree from a
regionally accredited institution comparable in standards and content to a bachelor’s degree from the University of California. A cumulative scholastic grade-point average of B (3.0 on a 4.0 scale) or better—or its equivalent if the letter grade system is not used—is required for undergraduate study and in any postbaccalaureate study. Additional requirements for international applicants are explained in Graduate Study. See the Division of Graduate Education admissions website.

Departments and programs in the school set additional admission requirements. See the school admissions web page.

Degree Requirements
Specific degree requirements vary according to the department and program. Refer to program requirements for UCLA graduate degrees.

Research Centers and Institutes
The centers and institutes below furnish SE&IS with valuable resources that support school programs and research. See research centers.

Black Male Institute
The Black Male Institute (BMI) is a cadre of scholars, practitioners, community members, and policymakers dedicated to improving the educational experiences and life chances of black males. Educational settings are considered to be critical spaces for developing informed action to address black male persistence in schooling, recognizing that the challenges that impact the academic success of black males are manifold, be they economic, social, legal, or health-related.

Center for Community Schooling
The Center for Community Schooling is a campus-wide initiative to advance university-assisted community schools. As stable anchor institutions, universities play a unique role as K-12 community school partners. Its research, teaching, and service missions inform and are informed by the work of local schools and communities.

Center for Critical Internet Inquiry
The work of the Center for Critical Internet Inquiry (C2i2) explores interdisciplinary intersections of digital technologies and society, with the goal of creating fairness, justice, equity, and sustainability in relationship to our technological engagements.

Center for Critical Race Studies in Education
The Center for Critical Race Studies in Education (CCRSE) along with the staff, visiting scholars, and invited authors are dedicated to producing and publishing research with the goal of exploring questions related to theoretical frameworks, methodology, methods, conceptual tools, and practice associated with critical race studies.

Center for Dyslexia, Diverse Learners and Social Justice
The Center’s aim is to provide local, state, national, and global leadership in the field, leveraging groundbreaking advances in cognitive and neurosciences, linguistics, and education to inform and transform K-12 teaching and learning.

Center for Information as Evidence
The Center for Information as Evidence (CIE) is an interdisciplinary forum to address the ways in which information objects and systems are created, used, and preserved as legal, administrative, scientific, social, cultural, and historical evidence. CIE is committed to incorporating perspectives from ethnic communities around the world, to sustain the diversity within indigenous cultural heritages and broaden methods of information analysis and conservation.

Center for Knowledge Infrastructures
The Center for Knowledge Infrastructures (CKI) conducts research on scientific data practices and policy, scholarly communication, and sociotechnical systems. It explores methods of data collection, innovations in scaling and workflows, and multidisciplinary approaches to complex problems.

Center for Research and Innovation in Elementary Education
The Center for Research and Innovation in Elementary Education, also known as CONNECT, links nationally recognized researchers with teachers and administrators at UCLA Lab School and public schools in Southern California to investigate central issues in education. Programs examine children’s learning and development from preschool to sixth grade; investigate teaching diverse student populations; encourage exchange of ideas among scholars, practitioners, and policymakers concerned with child development and school reform; and disseminate effective educational approaches and research.
Center for Research on Evaluation, Standards, and Student Testing

The Center for Research on Evaluation, Standards, and Student Testing (CRESST) is devoted to educational research, development, training, and dissemination. CRESST supplies leadership in these areas by creating new methodologies for evaluating educational quality, creating new designs for assessing student learning, promoting the sound use of assessment data, setting the national research agenda, and influencing practice.

Center for the Transformation of Schools

The Center for the Transformation of Schools (CTS) conducts research and develops tools to help education systems place a commitment to equity at the center of their work.

Center X

Center X offers a unique setting where researchers and practitioners collaborate to design and conduct programs that prepare and support K-12 education professionals committed to social justice, instructional excellence, the integration of research and practice, and caring in low-income urban schools.

Children’s Understanding of Economic and Social Inequality Lab

The Children’s Understanding of Economic and Social Inequality (CUESI) Lab examines children’s experiences of social inequality, and its influence on their academic and social outcomes. The lab’s research examines the extent to which contextual factors such as poverty, immigration, and social policies, influence family dynamics and, in turn, children’s developmental outcomes.

Civil Rights Project/Proyecto Derechos Civiles

The Civil Rights Project/Proyecto Derechos Civiles (CRP) research center is dedicated to creating a new generation of research in social sciences and law on the critical issues of civil rights and equal opportunity for racial and ethnic groups in the U.S. It has commissioned more than 400 studies, published 14 books, been cited in major Supreme Court decisions on affirmative action, and issued numerous reports from authors at universities and research centers across the country.

Community Archives Lab

The Community Archives Lab at UCLA explores the ways that independent, identity-based memory organizations document, shape, and provide access to the histories of minoritized communities.

Higher Education Research Institute

The Higher Education Research Institute (HERI) conducts research, evaluation, information, policy studies, and research training in postsecondary education. The HERI research program includes the outcomes of postsecondary education, leadership development, institutional transformation, faculty performance, federal and state policy, and educational equity; and houses the Cooperative Institutional Research Program (CIRP), the largest ongoing national study of college students in the U.S.

Institute for Democracy, Education, and Access

The Institute for Democracy, Education, and Access (IDEA) seeks to understand and challenge pervasive racial and social class inequalities in education. In addition to conducting research and policy analysis, IDEA supports educators, public officials, advocates, community activists, and young people as they design, conduct, and use research to make high-quality public schools and successful college participation routine occurrences in all communities. IDEA also studies how research combines with strategic communications and public engagement to promote widespread participation in civic life.

Institute for Immigration, Globalization, and Education

The Institute for Immigration, Globalization, and Education (IGE) conducts multidisciplinary and comparative research engaging policymakers, practitioners, and institutional leaders. The research informs efforts to expand opportunities, reduce barriers, and improve the well-being of diverse, vulnerable, and marginalized students. The work is timely in the context of globalization, which is profoundly changing the developmental contexts, educational trajectories, and life courses of children, adolescents, and young adults.

Momentum: Accelerating Equity in Computing and Technology

Momentum employs mixed-methods approaches to conduct cutting-edge research on efforts to diversity computing and technology fields.
Paulo Freire Institute

The Paulo Freire Institute (PFI) seeks to gather scholars and critics of Freire’s pedagogy in permanent dialog to foster the advancement of new pedagogical theories and concrete interventions in the real world. PFI brings together research, teaching, and technology while concentrating on five major areas: studies of globalization and education, teacher education, a comparative perspective on Latin American education, the politics of education, and Paulo Freire’s political philosophy and critical pedagogy.

Pritzker Center for Strengthening Children and Families

The UCLA Pritzker Center for Strengthening Children and Families is focused on the needs of children and youth who are disconnected from traditional pathways to success, in particular foster youth.

Sudikoff Family Institute for Education and New Media

The Sudikoff Family Institute for Education and New Media utilizes the popular press and other media to disseminate the work of SE&IS scholars to policymakers, educators, and the general public. Sudikoff Fellows are selected each year from SE&IS faculty members to enhance awareness of critical issues related to education and information studies, by contributing to a variety of media that reach a lay audience or serve the public interest in some manner.

UC/CSU California Collaborative for Neurodiversity and Learning

The UC/CSU California Collaborative for Neurodiversity and Learning believes that improving literacy is one of the great civil rights issues of this generation. Californians must work together to secure equal access to quality literacy instruction for all their children. Doing so is key not only to children’s literacy and well-being, but also to communities, democracy, and economy. The collaborative was established in June 2019 by Assembly Bill AB 1703. The collaborative represents a historic and critical investment in the state’s children with dyslexia and other literacy challenges.

School of Law

Michael E. Waterstone, JD, Dean

School of Law
1242 Law Building
310-825-4841

By any standard, UCLA School of Law is recognized as one of the nation’s great law schools. Each year a lively, talented, and diverse law student population assembles in a rigorous, innovative, and supportive environment. Faculty members frequently receive awards for teaching excellence, and are highly regarded University-wide and nationally. They also are recognized worldwide for their scholarship in a broad spectrum of fields that dramatically affect the world—constitutional law, environmental law and policy, human rights, criminal law, corporate law, corporate governance, employment law, international law, immigration law, and intellectual property, to name a few. The structure of U.S. democracy; the underpinnings of individual liberties and regulation of business; the powerless; the many permutations of a race-conscious society—all are subjects of investigation and study. Faculty members are committed to being intellectually and professionally demanding of students and supportive at the same time, encouraging and fostering a genuine spirit of collaboration and community.

Law students select courses from an intellectually rich curriculum. Courses are taught in both traditional and clinical settings, with some offered as part of coordinated concurrent degree programs or specializations in business law and policy; critical race studies; environmental law and policy; international and comparative law; law and philosophy; media, entertainment, technology, and sports law; technology, law, and policy; and public interest law and policy. Situated at a major gateway to the Pacific Rim, and part of an outstanding research university, UCLA School of Law affords law students myriad interdisciplinary opportunities in the classroom and through independent research.

The school’s nationally recognized experiential education program offers sophisticated courses that help students develop core lawyering skills, implement integrated advocacy strategies to solve clients’ problems, and gain from their UCLA education a deeper understanding of what it means to be a lawyer. The experiential education curriculum includes courses that help students develop expertise in client interviewing and counseling, negotiation, business transactions, trial advocacy, community lawyering, environmental law, human rights, and criminal justice. Law clinics offer students opportunities to provide direct representation and policy advocacy to clients in areas including immigration law, veterans advocacy, and prisoners’ rights. Their client communities span a broad spectrum, from artists pursuing film careers to incarcerated individuals seeking pardons.
The technologically advanced, spacious, and comfortable Hugh and Hazel Darling Law Library—replete with natural lighting and views—houses an extensive collection of legal materials.

Successful professional placement of graduates is a hallmark of the law school. Approximately 400 interviewers from law firms, corporations, government agencies, and public interest organizations across the country participate in campus events annually. More than 18,000 UCLA graduates work in coveted positions in California and around the world, serving in law firms and government agencies and working as in-house counsel, business executives, law professors, judges, and lawmakers.

Degrees
The School of Law offers the following degrees:

- Doctor of Juridical Science
- Juris Doctor
- Master of Laws
- Master of Legal Studies

Articulated Degree Programs
Master of Legal Studies/Doctor of Medicine

Concurrent Degree Programs
- Juris Doctor/African American Studies MA
- Juris Doctor/American Indian Studies MA
- Juris Doctor/Doctor of Education
- Juris Doctor/Education MA
- Juris Doctor/Education PhD
- Juris Doctor/Master of Business Administration
- Juris Doctor/Master of Education
- Juris Doctor/Master of Public Health
- Juris Doctor/Master of Public Policy
- Juris Doctor/Master Social Welfare
- Juris Doctor/Master Urban and Regional Planning
- Juris Doctor/Philosophy PhD

In addition to the concurrent programs above, students may design a tailored program from other disciplines in the UCLA curriculum or from another high-quality institution; this must be arranged in consultation with the School of Law and the other selected program.

Detailed information about academic programs, course titles and descriptions, fees, and the semester-system calendar are available on degrees and specializations.

Doctor of Juridical Science Degree
The Doctor of Juridical Science (SJD) degree program is designed for those seeking to pursue careers as teachers and scholars of law. The highly selective program is open only to applicants who possess a distinguished prior academic record in law, show promise of outstanding scholarship, and demonstrate a high potential for completing a scholarly dissertation of required quality. Applicants must hold a JD degree or foreign equivalent and an LLM degree (or be enrolled in a program leading to an LLM degree).

Juris Doctor Degree
UCLA School of Law has as one of its central purposes the training of attorneys who attain high levels of professional excellence and integrity, and who exercise civic responsibility in myriad ways over long careers.

Admission
By the time of enrollment, UCLA Law applicants must have a bachelor’s degree that has been awarded by an institution that is accredited by an accrediting agency recognized by the U.S. Department of Education. For students educated outside of the U.S., the undergraduate degree must be from an institution that is equivalent in quality to those of institutions accredited by an accrediting agency recognized by the U.S. Department of Education. UCLA requires students take a standardized test for admission—either the Law School Admission Test (LSAT) or the Graduate Record Examinations (GRE). For questions about UCLA Law’s admissions requirements, see information for first-year applicants or send e-mail the school admissions office.

UCLA Law seeks to admit students of outstanding intellectual ability who will bring a wide range of backgrounds, experiences, and perspectives to the classroom and the legal profession. Through long experience, the faculty has concluded that the quality of the education of each student is affected in significant ways by the presence of vital diverse viewpoints. Students of all backgrounds choose to come to UCLA in significant part because of UCLA Law’s outstanding achievements in creating a highly diverse educational environment.

In evaluating each applicant, the school places substantial weight on traditional measures of academic ability, namely grades and standardized test scores—specifically LSAT and GRE scores. It also recognizes that other factors and attributes contribute greatly to a person’s ability to succeed as a law student and lawyer including economic, physical, or other challenges that have been overcome; scholarly achievements such as graduate study, awards, and publications; the rigor of the undergraduate educational program undertaken; and letters of recommendation.
The school places special emphasis on socioeconomic disadvantage in the evaluation. The school also considers work experience and career achievement, community or public service, career goals, the ability to contribute to law school programs and specializations, evidence of and potential for leadership, language ability, unusual life experiences, and any other factors (except those deemed inadmissible by the Regents or by other applicable law) that indicate the applicant may make a distinctive contribution to UCLA Law or the legal profession.

**Residence and Unit Requirements**
Candidates for the Juris Doctor degree must pursue resident law school study for six semesters and successfully complete 87 units, at least 64 of which must be earned in regularly scheduled law class sessions. The residence requirements may be satisfied as follows: six semesters in regular session in this school; or two semesters in regular session (or equivalent) in a school that is accredited by the American Bar Association, coupled with four semesters in regular session (or equivalent) in this school.

Every first-year student must take the full schedule of required courses; second- and third-year students are required to take a minimum of 12 units and may not take more than 16 units each semester. Students complete a mandatory course in professional responsibility, a substantial analytical writing requirement, and six units of experiential coursework. In addition to the courses in the regular law school curriculum, students may take two courses for credit in other UCLA disciplines. Graduate students may enroll in upper-division law courses on a limited basis. Law courses are not open to non-UCLA students. Auditing of law courses is not permitted.

**Attendance and Grades**
The right to take examinations and the privilege of continuing as a student in the school are conditioned on regular classroom attendance. Information on the grading system, which is based on a letter-grade scale of A+ to F, and standards for satisfactory performance and for graduation may be obtained from the assistant dean for academic affairs.

**Curriculum**
Courses of instruction are offered within the school and supervised educational experiences outside it in an effort to enable students to think in new and clarifying ways and to prepare them for careers of practice and public service. To this end, the school employs several instructional techniques in a variety of subject areas.

In the first year of their legal education, students undertake intensive study of legal reasoning in fields that have historically dominated legal thought. Students begin with a pio-
Business law materials are integrated to varying degrees in the law school’s first-year curriculum, typically in property, contracts, and torts. The second- and third-year curricula in the specialization include courses covering a wide variety of legal and business issues, ranging from regulation of markets to the design of business transactions.

Critical Race Studies

UCLA School of Law is the only American law school to offer an advanced curriculum that fosters students’ systematic and rigorous study in the area of critical race studies. With many faculty members who have been instrumental in pioneering and advancing critical race theory, the Critical Race Studies specialization is essential to promoting insightful, intelligent public conversation about race relations. It is appropriate for law students who seek advanced study and/or practice in race and the law, critical race theory, civil rights, public policy, and other legal practice areas that are likely to involve working with racial minority clients and communities or working to combat racial inequality.

Environmental Law

UCLA School of Law is home to the Emmett Institute on Climate Change and the Environment, a national leader in scholarship and advocacy and home to top professors who are on the legal front lines. These scholars teach the intricacies of environmental law, provide students with invaluable mentorship and offer them a substantial boost into impactful careers as drivers of law and policy at all levels of government. Students participate in a wide array of cutting-edge courses and experiential programs. These include the Frank G. Wells Environmental Law Clinic and the California Environmental Legislation and Policy Clinic, where students work directly with state lawmakers to address specific problems confronting the environment. Through the Emmett Institute, students travel to high-level meetings in California and a variety of overseas destinations where they confer with experts in the field. Students also write and edit the Journal of Environmental Law and Policy, complete externships at organizations including the Natural Resources Defense Council and collaborate on campus-wide symposia and initiatives to confront one of the biggest challenges of our time.

International and Comparative Law

The International and Comparative Law program is one of the best in the nation. An expansive law faculty, course offerings, colloquia and symposia, student-edited journals, externships, foreign exchange offerings, and a broad community of interested students from around the world constitute a rich milieu in which to learn about the field. The International and Comparative Law specialization builds on these strengths, and directs students to coursework that may range from international business to comparative constitutional law to international human rights.

Law and Philosophy

The Law and Philosophy specialization is designed for students who want to supplement their legal studies by exploring more theoretical issues concerning the philosophical foundations of law. It is invaluable to those students interested in attending graduate programs or exploring a career in academia. The specialization exposes students to material on the nature of law and legal systems, legal methodologies, and the theoretical underpinnings and justifications of particular doctrinal areas such as constitutional law, criminal law, and contract. Students need not have any prior background in philosophy, but a strong interest in the subject is recommended.

Media, Entertainment, Technology, and Sports Law and Policy

Los Angeles is the center of the entertainment industry. The Media, Entertainment, Technology, and Sports Law and Policy specialization is the most comprehensive, advanced, and innovative approach to the study of entertainment and media law in the country. Students who fulfill the requirements have a solid grounding in the law, customs, theory, and policy in the motion picture, television, music, and other industries involved in creative and artistic matters. The program also prepares students who choose to work in nonprofit institutions, government, or academia in the area of entertainment, media, and intellectual property law.

Public Interest Law and Policy

Recognizing the considerable debate about the proper role of the law in creating and sustaining a just society, the David J. Epstein Program in Public Interest Law and Policy specialization strives to offer its students an innovative and intellectually ambitious curriculum that prepares them to engage in sophisticated representation of traditionally underserved clients and interests. The specialization, one of the nation’s top such programs, has a competitive admissions process. Graduates have received prestigious public interest law fellowships, including the Skadden and Equal Justice Works postgraduate fellowships, and work in a variety of settings, including nonprofit organizations, government agencies, think tanks, and private public interest firms. Graduates work throughout the world in a broad range of social justice issues such as homelessness prevention; immigrants’ rights; health-care access; poverty; workers’ rights; international human rights; criminal justice;
lesbian, gay, bisexual, transgender, and queer rights; and more. Faculty members are leaders in their respective fields, and have distinguished themselves by the quality of their practical legal experience, scholarship, and teaching.

**Technology Law**

Technology law is a field of growing importance across the legal profession, and an area of increasing interest to students. In practical terms, law and technology practitioners engage across a range of different doctrinal areas including patent law, trademark law, copyright law, privacy law, antitrust, etc. These diverse fields have begun to coalesce into a distinct thematic area of scholarship and practice, as evidenced by the propagation of specialized law and technology journals (including at UCLA), and an expanding number of law firms which bill themselves as focusing on technology law. This specialization aims to support students’ entry into career tracks related to technology, and provides a distinct home to students interested in this space, as well as career development, mentorship, and educational opportunities aimed at cultivating a mastery over this exciting and emerging field.

**Academic Specializations for LLM Degree**

**Business Law**

The Business Law specialization is designed to allow students to focus in one of four tracks: business law, bankruptcy, securities regulation, and taxation. Approximately 70 courses and seminars are offered in the specialization. The four tracks are designed to offer guidance to students in course selection, as well as highlight the specialization’s curricular strengths. The advanced curricula include courses covering a wide variety of legal and business issues, ranging from regulation of markets to the design of business transactions. The Lowell Milken Institute for Business Law and Policy prepares students for outstanding careers and leadership in business law; as well as in business, the nonprofit sector, and philanthropy. The institute simultaneously serves as a dynamic hub of research and strategy for practitioners, scholars, and experts across a variety of disciplines.

**Critical Race Studies**

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**Law and Sexuality**

The Law and Sexuality specialization builds on the role of the school as a leader in the field of sexual orientation and gender identity law and scholarship. The goal of the specialization is to expand the quality and extent of legal knowledge and public discourse on issues related to sexuality and law. It is affiliated with the Williams Institute, a national think tank dedicated to conducting rigorous, independent research on sexual orientation and gender identity law and
public policy. Students can take classes offered by faculty members and scholars associated with the institute, and participate in a range of institute activities including the speaker series and annual conference, moot court competition, and the Dukeminier Awards journal. Staff from the institute work with LLM students to secure internships in the Los Angeles area and to establish connections between LLM students and international experts and organizations working in their geographic or topic area. The specialization involves coursework on comparative and/or international law with focus on sexuality issues.

Media, Entertainment, and Technology Law and Policy

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Public Interest Law

Exploring the proper role of the law in creating and sustaining a just society, the Public Interest Law specialization strives to offer its students an innovative and intellectually ambitious curriculum that prepares them to engage in sophisticated representation of traditionally underserved clients and interests. The specialization, one of the nation’s top such programs, has a competitive admissions process. Students represent a broad range of political and ideological perspectives. Graduates’ impact is far reaching as they work on a broad range of social justice issues such as women’s rights; immigrants’ rights; poverty; health-care access; international human rights; criminal justice; lesbian, gay, bisexual, transgender, and queer rights; and more.

Research Centers, Institutes, and Programs

A. Barry Cappello Program in Trial Advocacy

The A. Barry Cappello Program in Trial Advocacy provides comprehensive training in the strategies and techniques required to be a successful trial lawyer. Through courses, clinical opportunities, and one of the best competition programs in the country, students learn how to prepare for and conduct jury selection, opening statements, direct and cross examinations, and closing arguments, as well as how to make and respond to evidentiary objections. Award-winning faculty, experienced trial lawyers, and nationally successful mock trial coaches lead the program.

Animal Law and Policy Program

The Animal Law and Policy Program is an institutional umbrella for various courses in animal law, including a clinical or simulation course through which students can learn practical legal skills in the role of hearing examiners in potentially dangerous dog disputes, and also includes a small grants program designed to encourage qualitative and quantitative empirical research that advances animal law and policy reform.

Center for Immigration Law and Policy

Founded in 2020, the Center for Immigration Law and Policy (CILP) at the UCLA School of Law expands the law school’s role as a national leader in immigration law and policy. CILP generates innovative ideas at the intersection of immigration scholarship and practice; serves as a hub for transforming those ideas into meaningful changes in immigration policy at the local, state, and national level; and empowers students with unique opportunities for experiential learning through work with academics, practitioners, policymakers, and activists. CILP pursues those goals by supporting faculty performing cutting-edge work in immigration law and policy; bolstering initiatives for student engagement including the Immigrant Family Legal Clinic, the Immigrants’ Rights Policy Clinic and service-learning trips for UCLA Law students to border regions; engaging in strategic litigation; publishing briefings and reports on immigration policy; and hosting conferences and symposia featuring top national scholars.

Center for Law and Economics

The mission of the Center for Law and Economics is to foster academic scholarship exploring how economics can help us better understand and improve our laws. UCLA has one of the richest law and economics traditions in the world, and many of the founders of law and economics have made UCLA their academic home. The center, along with the Anderson Graduate School of Management and School of Law Lowell Milken Institute for Business Law and Policy, sponsors the UCLA Law, Economics, and Organization Workshop, where speakers present their latest works-in-progress in the broad area of law and economics as it relates to business organizations.
Criminal Justice Program

The Criminal Justice Program (CJP) serves as a central hub for UCLA Law’s work in the area of criminal and juvenile law. Through CJP, students interested in criminal law may engage directly in a wide range of specialized courses, and also have opportunities to engage in research, policy advocacy, and client representation. Research undertaken by CJP faculty and staff help to inform criminal law and policy at both the national and local levels. This research has several key areas of focus including police brutality and accountability, criminal law and immigration enforcement, pretrial detention and bail policy, collateral consequences of criminal convictions, youth justice and the family regulation system, restorative and transformative justice, and alternatives to policing and prosecution.

Critical Race Studies Program

Throughout American history, race has profoundly affected the lives of individuals, growth of social institutions, substance of culture, and workings of our political economy. Not surprisingly, this impact has been substantially mediated through the law and legal institutions. To understand the deep interconnections between race and law and, particularly the ways in which race and law are mutually constitutive, is an extraordinary intellectual challenge with substantial practical implications. In a nation that is becoming more racially diverse and finds global issues at the forefront of political debate, these issues promise to remain central to the work of law practitioners and the research of legal scholars. The only one of its kind in the U.S., the Critical Race Studies Program is proud that some of the original architects of critical race theory are faculty members. Established in 2000, the program is a training ground for a new generation of practitioners, scholars, and advocates committed to racial justice theory and practice; and is a multifaceted program that augments a rigorous course of study with research colloquia, symposia, interdisciplinary collaborations, and community partnerships in order to integrate theory and practice.

David J. Epstein Program in Public Interest Law and Policy

The school’s highly selective David J. Epstein Program in Public Interest Law and Policy was established in 1997 in response to the need to better train public-interest lawyers. It quickly became one of the nation’s most innovative and successful law school public-interest programs, engaging students in an array of social justice issues. The program strives to ensure that its students pursue an innovative and intellectually ambitious curriculum, and extracurricular involvement that best prepares them to engage in sophisticated representation of traditionally underserved clients and interests. Beyond the formal coursework, the program offers an array of opportunities for students to hear from leading public-interest practitioners and scholars, work on current policy problems, and become involved in public-interest activities within and outside the School of Law. The program also sponsors a series of forums, symposia, and activities that focus on social justice issues in which all students, faculty, alumni, and the broader community participate.

Emmett Institute on Climate Change and the Environment

The Emmett Institute on Climate Change and the Environment is the leading law-school center focused on climate change and other critical environmental issues. Founded in 2008, the institute works across disciplines to develop and promote research and policy tools useful to decision-makers locally, statewide, nationally, and beyond. The institute houses the school’s leading environmental programs, including the Frank G. Wells Environmental Law Clinic, a vital training ground for environmental lawyering. Taking advantage of its home at one of California’s top law schools, the institute has particular expertise in the cutting-edge steps taken by California to lead the way toward meaningful reductions of greenhouse gas emissions. Lawmakers, the broader legal community, business leaders, academics, and the media rely on the institute as a trusted resource to analyze and answer questions about policy and law issues related to climate change and other environmental challenges.

Empirical Research Group

UCLA School of Law is one of the few law schools in the country to offer its faculty and researchers the support of trained methodologists to support empirical research. The Empirical Research Group (ERG) specializes in the design and execution of quantitative research in law, the social sciences, and public policy. ERG enables faculty members to include robust empirical analysis in their legal scholarship and promotes interdisciplinary collaboration. ERG has been involved in research across a wide range of topics including bankruptcy, criminal justice, criminal and civil procedure, education, environmental policy, gender and sexual identity, housing, law and economics, tax policy, and voting rights. ERG trains and supervises law students and research assistants in research methods and works closely with law students who conduct their own empirical research.

Experiential Education Program

The School of Law has long been recognized for its innovative approach to experiential teaching that transforms the classroom into a real-world laboratory through the integra-
tion of theory and practice. It has been a national leader in clinical teaching since the early 1970s, and continues to offer rigorous practical training across a wide range of practice areas. Students gain crucial firsthand experience that prepares them for future careers, learning from faculty members whose knowledge and expertise place them at the forefront of experiential education.

From the first year, students have opportunities to receive training and hands-on experience by participating in the El Centro Legal Clinics. El Centro places students with public-interest legal services organizations to provide legal assistance to underserved individuals, families, and communities. Second- and third-year students can participate in a broad array of clinical and experiential courses that encompass all areas of legal practice—litigation, transactional, and public interest. In addition, second- and third-year students can do part-time and full-time externships, working for judges, government agencies, public interest law firms, and nonprofit organizations.

The experiential education program is led by exceptional faculty members—visionary scholars who have contributed the cornerstone ideas that form the basis of clinical training, as well as a new generation of leaders who are bringing experiential education into areas of the legal profession that have long remained outside the scope of hands-on training.

Externships and Field Placements

Through the School of Law’s extensive and diversified externship program, students can work in a supervised environment with a wide variety of employers and in a diverse range of practice areas. Students are able to extern with judges, government agencies, nonprofit organizations, or in some circumstances, entertainment and other in-house placements. They also may participate in the UCDC Law Program, a full-time externship program in Washington, DC. The field placement program brings together faculty members, students, and practicing lawyers to collaborate and connect classroom learning with practice opportunities.

Institute for Technology, Law and Policy

The UCLA Institute for Technology, Law and Policy is a collaboration between the UCLA School of Law and the Samueli School of Engineering whose mission is to foster research and analysis to ensure that new technologies are developed, implemented, and regulated in ways that are socially beneficial, equitable, and accountable. The institute brings together faculty and students from the law and engineering schools to conduct research, convene events, and engage the wider academic community and the public about the benefits and risks of technologies including artificial intelligence and machine learning, extended reality, cybersecurity, and digital media and communications.

International and Comparative Law Program

The International and Comparative Law Program offers a wealth of courses, seminars, and clinics, prominent symposia, international moot court opportunities, and highly regarded student-edited journals that address the emerging challenges of a globalized world. Permanent faculty members offer numerous international and comparative law courses such as international business transactions, national security law, international environmental law, international criminal law, European Union law, and Islamic law. The study of international and comparative law is further strengthened by the opportunity to take courses in other UCLA departments. Some of the country’s best work in international economics, politics, and business occurs at UCLA, and many law students find it valuable to complement their law school work with coursework in other departments. Students may also pursue joint degrees with other departments with the approval of the law school administration.

Law and Philosophy Program

The School of Law and the Philosophy Department offer an exciting program in law and philosophy that takes advantage of the law faculty’s strength and depth in the subject, and the school’s close relationship to the Philosophy Department. The program has many dimensions, including a wide range of courses at the intersection of law and philosophy and a legal theory workshop, open to all members of the law school and Philosophy Department, in which leading scholars present works in progress.

Lowell Milken Institute for Business Law and Policy

The central mission of the Lowell Milken Institute for Business Law and Policy is to influence national legal and policy debate over critical issues affecting the regulation and governance of business. The institute seeks to fulfill this mission by promoting innovative research at the intersection of law and business, by a highly respected and widely recognized business law faculty; by offering a unique blend of policy and practice-oriented courses designed to prepare law students to be leaders in the new economy; and by hosting timely conferences and scholarly events on matters that advance the public discussion.
Native Nations Law and Policy Center

The Native Nations Law and Policy Center supports Native nations to enhance their governmental institutions and laws, strengthen their cultural resource protections, and address critical public policy issues by bringing together UCLA academic resources and the knowledge and experience of tribal leaders and knowledge-holders. The center serves as the home for the concurrent Juris Doctor/American Indian Studies MA program; the Richard M. Milanovich Fellowship in Law, the first-of-its kind fellowship supported by the Agua Caliente Band of Mission Indians devoted to the promotion of Native American legal scholarship; the Graton Scholarship, a three-year, full tuition scholarship for five UCLA Law students annually seeking legal careers in Native American law; numerous courses devoted to the study of Native American law, tribal law, and indigenous rights; and the Tribal Legal Development Clinic, a year-round legal clinic that connects Native nations with law students in projects such as code development and serving as law clerks for tribal courts.

Office of Public Interest Programs

UCLA School of Law has a long-standing commitment to public service, and is committed to cultivating an environment that encourages all of its students and alumni to better serve society in myriad ways. Students gain significant exposure and experience in public service through clinical courses, a pro bono program, an externship program, extensive public interest advising and informational programming, and numerous student organizations. The Office of Public Interest Programs, hub of the school’s public interest efforts, hosts a variety of career-oriented programs and relevant public interest forums and events in which students, faculty, alumni, and the broader community participate. The office also hosts the annual Southern California Public Interest Career Day, which attracts more than 110 public service employers and some 1,000 students from around the region.

Prison Law and Policy Program

The Prison Law and Policy Program serves as a hub connecting students and faculty committed to understanding and challenging the American carceral system. Through a focus on prisons and jails, it aims to shed light on the way the law structures all aspects of the contemporary experience of criminal punishment in the U.S. Its main goals are to train the next generation of prisoners’ rights lawyers and to expose the broader law school community to the practices of American penalty and the issues of law, policy, justice, and morality these practices raise. Program initiatives include the Incarcerated Persons Correspondence Project, the Incarcerated Persons Pen Pal Project, the Prison Accountability Project, and the Behind Bars Data Project.

Program on Legal Ethics and the Profession

The Program on Legal Ethics and the Profession provides students with a foundation in legal ethics through classes and events focused on the ethical responsibilities of counsel and the legal profession’s commitment to public service and access to justice. By fostering discussion and the practical and scholarly exchange on the central challenges of contemporary legal practice, the program trains the next generation of lawyers and professional leaders to identify solutions to resolve complex ethical problems.

Program on Understanding Law, Science, and Evidence

Founded in 2009, the Program on Understanding Law, Science, and Evidence (PULSE) explores the many connections between law and science, technology, and evidence. PULSE engages in interdisciplinary research, discussion, and programming to examine how basic facts about our world, furnished through science and credited as evidence, influence various venues of law and policymaking.

The Promise Institute for Human Rights

The Promise Institute for Human Rights is the innovative center for human rights education, research, and impact at UCLA School of Law. Leveraging the creativity and dynamism of Los Angeles, the institute seeks to reimagine the potential of human rights to address some of the most pressing issues of our time.

The institute brings together leading experts in international law and human rights. From its rich curriculum to our broad array of focus areas and projects, it empowers the next generation of human rights lawyers and leaders.

Resnick Center for Food Law and Policy

The Resnick Center for Food Law and Policy is dedicated to studying and advancing law and policy solutions to improve the modern food system. A national think tank at the school, the program develops key legal and policy research and tools to foster a food system, from farm to fork, that is healthy both for consumers and the environment.
Transnational Program on Criminal Justice

The Transnational Program on Criminal Justice seeks justice across borders through examination of the principles, practices, and social conditions of criminal justice systems across the world. The program produces timely, collaborative research to improve understanding on diverse topics at the intersection of criminal justice, comparative and international law, and human rights law.

UCLA Institute for Technology, Law, and Policy

The UCLA Institute for Technology, Law, and Policy performs cross-disciplinary research on the ways that new and emerging technologies affect society, privacy, law, and public policy. The institute is a collaboration between UCLA School of Law and the UCLA Samueli School of Engineering. The institute brings together faculty and students from the law and engineering schools to conduct research, convene events, and engage the wider academic community and the public about the benefits and risks of technologies including artificial intelligence and machine learning, robotics, cybersecurity, and digital media and communications.

UCLA-RAND Center for Law and Public Policy

The UCLA-RAND Center for Law and Public Policy is a unique partnership of UCLA Law and the RAND Corporation. The center promotes collaborative legal and policy research grounded in multidisciplinary empirical analysis to guide legal and public policymakers in the 21st century. The center addresses topics as varied as medical malpractice, class actions, employment discrimination, and institutional reform. One of the center’s largest ongoing projects is a large-scale data collection and analysis project on civil justice in Los Angeles Superior Courts. The center has expanded curricular offerings such as courses on policy analysis and advocacy, gerrymandering, and other law and policy topics.

Williams Institute

The Williams Institute is the only think tank of its kind dedicated to the field of sexual orientation and gender identity law and public policy. The institute supports legal scholarship, legal research, policy analysis, and education regarding sexual orientation, gender identity discrimination, and other legal issues that affect lesbian, gay, bisexual, transgender, queer, and other persons. The institute began with the recognition that issues central to sexual orientation and gender identity law have profound implications for the development of the law and public policy in general. Drawing on the intellectual and material resources of UCLA, the institute serves as a national center for the interdisciplinary exploration of these issues by scholars, judges, practitioners, advocates, and students.

Ziffren Institute for Media, Entertainment, Technology and Sports Law

The Ziffren Institute for Media, Entertainment, Technology and Sports Law supports and expands the curricular offerings of the Media, Entertainment, Technology and Sports Law and Policy specialization. The program helps students interested in learning more about entertainment law to earn externships with entertainment-related businesses, brings influential speakers to campus, and sponsors the industry’s top legal conference on entertainment issues, the annual UCLA Entertainment Symposium. Students run an entertainment-related journal, the UCLA Entertainment Law Review; and the student organization, the Entertainment Law Association.

Ziman Center for Real Estate

Reflecting a growing interdisciplinary focus at UCLA, the School of Law formed a partnership in 2005 with the Anderson Graduate School of Management to create the Ziman Center for Real Estate. The center is firmly grounded in the scholarship and teaching missions of both schools, and offers practical application principles that help real estate industry professionals, public officials, and business people make critical policy and business decisions. The center truly bridges the divide between research and practice, and offers students a full range of coursework that supplies a holistic view of real estate issues.

School of Nursing

Lin Zhan, RN, PhD, FAAN, Dean
School of Nursing
2-147 Factor Building
310-825-7181
Student Affairs e-mail

The UCLA School of Nursing enjoys a national and international reputation for excellence in teaching, research, and clinical practice.

A strong scientific basis underlies the teaching of nursing practice, leadership, and research. Related clinical experiences are arranged within the Ronald Reagan UCLA Medical Center, its affiliates, and in selected community sites.
The bachelor’s degree program prepares nurses as generalists with special skills in primary, secondary, and tertiary prevention and care within a population-based context; leadership; and evidence-based practice. The master’s degree program prepares nurses as generalists in hospital-based care or for advanced nursing practice as nurse practitioners or clinical specialists in a variety of settings and specialized areas of health care. The PhD program prepares scholars who conduct original research, generate new theories, and build the scientific basis for professional nursing practice. Research is both basic and applied. The DNP program prepares nurses who are currently functioning at an advanced level of practice as nurse practitioners or clinical nurse specialists. The professional practice doctorate is designed to develop competencies for advanced clinical and leadership roles beyond the master’s degree necessary for the higher levels of patient safety and quality of patient care. Leadership, health system knowledge, and quality—as well as health care policy and critical content—are emphasized in the curriculum.

The school has an exceptionally qualified faculty; many members have national and international reputations for excellence. The school is consistently ranked high for its teaching and research programs. The innovative curriculum is responsive to national needs in health care and the diversity of the patient population. Graduates of the program are sought by health care institutions and educational programs, and many alumni have become leaders in the field. Education in this research university, with its full range of academic disciplines, offers a rich environment for preparation in the health sciences.

History and Accreditation

In 1949, the Regents of the University of California authorized the School of Nursing as one of the professional schools of the UCLA Center for Health Sciences. This action paved the way in 1950 for the opening of an undergraduate traditional program in nursing leading to the Bachelor of Science (BS) degree. In 1997, the original traditional BS program curriculum was revised to meet the educational needs of students who are registered nurses with Associate Degrees or diplomas in nursing. In 2006, the school reinstated a traditional/prelicensure BS program with admission at the freshman level. In 2010, the BS (Generic/Prelicensure) program was renamed to the BS (Prelicensure) program.

In 1951, a graduate program leading to the Master of Science (MS) degree in Nursing was established to prepare baccalaureate graduates for advanced practice nursing roles. In 1966, the Master of Nursing (MN) degree was established as an alternate to the MS degree, which was discontinued in 1969. In 1996, the master’s degree designation was changed from MN to Master of Science in Nursing (MSN), which is still awarded to graduates prepared as nurse practitioners and clinical nurse specialists. In 2006, the school launched the master’s entry clinical nurse (MECN)/prelicensure option within the MSN degree program, which is designed for prelicensure students with bachelor’s degrees or higher education in another discipline.

In 1986, the Doctor of Nursing Science (DNSc) degree program was approved, and in 1987 the first doctoral students were admitted. In 1995, the doctorate degree designation was changed from DNSc to PhD in Nursing. In 2013, an en-route MS option was established within the existing PhD program. In 2015, UCLA approved conversion of the DNSc degree to a PhD for former DNSc graduates.

In 2018, the Doctor of Nursing Practice (DNP) program was approved. Graduates of the DNP program will be the leaders for the translation of research into practice. The DNP degree is designed to meet the dynamic needs of the national health care system to improve quality of care, promote patient safety, and reduce cost.

The prelicensure (BS and MECN) and advanced practice master’s programs are approved by the California Board of Registered Nursing. In 2020, the Commission on Collegiate Nursing Education (CCNE) renewed that accreditation for an additional 10 years.

Degrees

The School of Nursing offers the following degrees:

- Doctor of Nursing Practice
- Master of Science in Nursing
  
- Nursing BS, MS, PhD

Concurrent Degree Program

- Master of Science in Nursing/Master of Business Administration

Admission is currently suspended to the Nursing and Management concurrent degree.

School Philosophy

The School of Nursing is guided by a philosophy that embodies the mission and goals of the University of California. The philosophy addresses nursing, the clients of nursing, and nursing students. The school is committed to an interdisciplinary learning environment.

Nursing encompasses clinical practice, education, research, consultation, leadership, management, and service to the profession; and to the local and global community. It involves individuals, families, groups, organizations, and communities as clients. The profession must consider the human and physical environments that interact with these
clients who may have health conditions that range from wellness to illness. Nursing activities must therefore include health promotion and maintenance, intervention and treatment, rehabilitation and restoration, and palliation. At an advanced-practice level, nursing involves comprehensive health care that encompasses the responsibility and accountability for continuity of care across the health-illness spectrum.

Nursing research is both applied and basic; it has as its core actual or potential human responses to illness, and as its goal the development of nursing science. Guided by ethical standards that consider the perspectives of the client, the health care provider, and the larger society, nursing has a social mission that encompasses the right and responsibility to provide leadership in health policy and health care to all its clients regardless of disease status, gender, race, or culture.

People who receive client-centered nursing care are complex individuals who exist in relationship to others in their family and community. This complexity of person involves biological, behavioral, emotional, sociocultural, and spiritual dimensions. Each individual reflects a unique combination of these dimensions that interact dynamically with the environment. The clients of nursing are autonomous decision makers who have certain values and knowledge about themselves that are relevant and essential to successful health care outcomes. As a result, persons have a right and a responsibility to participate collaboratively in their care with the nurse and other health professionals.

Successful nursing students are active learners who bring unique gender, cultural, and ethnic life experiences to the professional practice of nursing. Students at all levels learn relevant theory, acquire practice skills, and are socialized into the profession of nursing. Increasing levels of complexity and sophistication of learning and socialization are expected of students in the different programs. Whether at the beginning practice, advanced practice, or scholar level, nursing students learn to apply knowledge, skills, and professional attitudes in their practice that may include education, administration, and research. While students have the right and responsibility to participate in their own learning, faculty members have the right and responsibility to structure the teaching/learning environment to facilitate learning. Individual academic counseling and a variety of one-on-one, small-group, and interactive learning formats assist students to meet program and individual learning goals.

Undergraduate Admission
New undergraduate students are admitted in fall quarter only. BS (Prelicensure) freshman students are admitted at the freshman level, and transfer students are admitted at the sophomore level. See Nursing prelicensure Entry to the

Degree Requirements

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Courses that do not satisfy specific UC, school, or department requirements are referred to as electives and can be used to meet the minimum unit requirement for graduation.

Undergraduate Degree Requirements
Students must satisfy UC requirements, school requirements, and major requirements for award of a Bachelor of Science degree.

University Requirements
The University of California has two requirements that undergraduate students must satisfy in order to graduate: Entry-Level Writing or English as a Second Language, and American History and Institutions. See Degree Requirements in Undergraduate Study for details.

Students enrolled in English Composition 1A, 1B, and 2I must take each course for a letter grade.

School Requirements
There are six requirements that must be satisfied for award of a degree.

Unit Requirement
Students must complete with a passing grade a minimum of 180 units. At least 83 of the 180 units must be upper-division courses numbered 100 through 199. A maximum of 216 units
is permitted. Students with advanced placement or international baccalaureate credit may exceed the unit maximum by the amount of that credit.

Scholarship Requirement

A 2.0 (C) grade-point average is required in all work attempted at the University of California, exclusive of courses in UCLA Extension and those graded Passed/Not Passed. A 2.0 (C) grade-point average is also required in all upper-division courses in the major taken at the University of California, as well as in all courses applied toward the general education and UC requirements. Each required nursing course in the school must be completed with a C or better grade (a C– grade is not acceptable). Elective courses may be taken on a Passed/Not Passed basis with prior approval, according to the policy stated in Policies and Regulations.

Academic Residence Requirement

Students are in residence while enrolled and attending classes at UCLA with a declared major in the School of Nursing, and must complete all units in the junior and senior years in residence at the school.

Writing Requirement

Students must complete the UC Entry-Level Writing or English as a Second Language (ESL) requirement prior to completing the school writing requirement.

Students admitted to the school are required to complete a two-term writing requirement—Writing I and Writing II. Two courses in English composition are required for graduation. Both courses must be taken for letter grades, and students must receive a grade of C or better in each (a C– grade is not acceptable).

Writing I

The Writing I requirement must be satisfied within the first three terms of enrollment by completing English Composition 3, 3D, 3DX, 3E, or 3SL with a C or better grade (a C– or Passed grade is not acceptable).

The Writing I requirement may also be satisfied by scoring 4 or 5 on one of the College Board Advanced Placement Examinations in English; completing a course equivalent to English Composition 3 with a C or better grade (a C– or Passed grade is not acceptable) taken at another institution; or scoring 5, 6, or 7 on an International Baccalaureate Higher Level Examination.

Students whose native language is not English may need to take English Composition 1A, 1B, and 2I before enrolling in a Writing I course. All courses in the sequence must be passed with a C or better grade (a C– or Passed grade is not acceptable).

Qualifying examination scores and courses are determined by the school Faculty Executive Committee.

Writing II

The Writing II requirement must be satisfied within seven terms of enrollment by completing one course from a faculty-approved list of Writing II courses and available in the Student Affairs Office; see the Registrar’s Writing II requirement web page for details. Courses that satisfy the requirement are denoted by a W suffix and are impacted. The course must be completed with a C or better grade (a C– or Passed grade is not acceptable).

Applicable Writing II courses also approved for general education credit may fulfill the relevant general education foundational area.

Transfer students with 90 or more units who have completed the Intersegmental General Education Transfer Curriculum (IGETC) will have satisfied the Writing I and Writing II requirements. No transfer student is admitted to the school without completing, with a C or better grade (C– grade is not acceptable), a college-level writing course that Undergraduate Admission accepts as equivalent to English Composition 3.

Quantitative Reasoning Requirement

Students must demonstrate basic skills in quantitative reasoning. The requirement may be satisfied by completing one approved UCLA course (see list below) or an equivalent course within the first seven terms of enrollment. The course must be taken for a letter grade, and students must receive a C or better grade (a C– grade is not acceptable).

The requirement may also be satisfied by achieving an SAT Reasoning Test Mathematics Section score of 600 or higher or an SAT Subject Test in Mathematics score of 550 or higher. Approved UCLA courses and examinations, and qualifying scores, are determined by the school Student Affairs Committee. Approved courses are listed below.

If approved for general education (GE) credit, applicable courses may also fulfill a GE requirement.

Transfer students with 90 or more units who have completed the Intersegmental General Education Transfer Curriculum (IGETC) will have satisfied the quantitative reasoning requirement. No transfer student is admitted to the school without completing, with a C or better grade (a C– grade is not acceptable), a college-level quantitative reasoning course that Undergraduate Admission accepts as equivalent to those approved by the Faculty Executive Committee. Approved courses include
General Education Requirements

Foundations of the Arts and Humanities
- Literary and Cultural Analysis (1 course)
- Philosophical and Linguistic Analysis (1 course)
- Visual and Performance Arts Analysis and Practice (1 course)
Total = 15 units minimum

Foundations of Society and Culture
- Historical Analysis (1 course)
- Social Analysis (1 course)
- Third course from either subgroup (1 course)
Total = 15 units minimum

Foundations of Scientific Inquiry
- Life Sciences (2 courses)
- Physical Sciences (2 courses)
Total = 18 units minimum

Total General Education (GE) = 10 courses/48 units minimum

One of the 10 courses may be a GE-approved Writing II course in an appropriate foundational area selected from a list published in the Schedule of Classes and available in the Student Affairs Office.

Preparation for the major courses may overlap with GE foundation courses.

- Biostatistics 100A, 100B
- Life Sciences 20, 30A, 30B, 40
- Mathematics 3A, 31A, 3IAL
- Philosophy 31
- Political Science 6, 6R
- Program in Computing 10A, 10B, 10C
- Public Affairs 60
- Statistics 10, 12, 13

General Education Requirements

General education (GE) is more than a checklist of required courses. It is a program of study that reveals to students the ways that research scholars in the arts, humanities, social sciences, and natural sciences create and evaluate new knowledge; introduces students to the important ideas and themes of human cultures; fosters appreciation for the many perspectives and diverse voices that may be heard in a democratic society; and develops the intellectual skills that give students the dexterity they need to function in a rapidly changing world.

This entails the ability to make critical and logical assessments of information, both traditional and digital; deliver reasoned and persuasive arguments; and identify, acquire, and use the knowledge necessary to solve problems.

Foundations of Knowledge

General education courses are grouped into three foundational areas: Foundations of the Arts and Humanities, Foundations of Society and Culture, and Foundations of Scientific Inquiry.

Ten courses (48 units minimum) are required. A course taken to meet the Writing II requirement may also be applied toward a GE requirement. Preparation for the major courses may overlap with the foundation courses.

Students must meet with the student affairs officer in the Student Affairs Office to determine the applicability of GE cluster courses toward Writing II or GE requirements.

Courses listed in more than one category can fulfill GE requirements in only one of the categories.

Foundations of the Arts and Humanities
Three 5-unit courses, one from each subgroup:
- Literary and Cultural Analysis
- Philosophical and Linguistic Analysis
- Visual and Performance Arts Analysis and Practice

Courses in this area supply perspectives and intellectual skills necessary to comprehend and think critically about our situation in the world as human beings. In particular, courses furnish the basic means to appreciate and evaluate the ongoing efforts of humans to explain, translate, and transform their diverse experiences of the world through such media as language, literature, philosophical systems, images, sounds, and performances. The courses introduce students to the historical development and fundamental intellectual and ethical issues associated with the arts and humanities and may also investigate the complex relations between artistic and humanistic expression and other facets of society and culture.

Foundations of Society and Culture
Three 5-unit courses, one from each subgroup and a third course from either subgroup:
- Historical Analysis
- Social Analysis

Courses in this area introduce students to the ways in which humans organize, structure, rationalize, and govern their diverse societies and cultures over time. Courses focus on a particular historical question, societal problem, or topic of political and economic concern in an effort to demonstrate how issues are objectified for study, how data is collected and analyzed, and how new understandings of social phenomena are achieved and evaluated. Because communication skills are essential in the nursing profession, Communication 10 is recommended for this foundational area.
Foundations of Scientific Inquiry
Four courses, two from each subgroup:
  • Life Sciences
  • Physical Sciences

Courses in this area ensure that students gain a fundamental understanding of how scientists formulate and answer questions about the operation of both the physical and biological world. Courses also deal with some of the most important issues, developments, and methodologies in contemporary science.

Foundations Course Lists
Creating and maintaining a general education curriculum is a dynamic process; consequently, courses are frequently added to the list. For the most current list of approved courses that satisfy the Foundations of Knowledge GE plan, consult with an academic counselor or see the master list.

Intersegmental General Education Transfer Curriculum
Transfer students from California community colleges must fulfill UCLA lower-division GE requirements by completing the Intersegmental General Education Transfer Curriculum (IGETC) prior to transfer. The curriculum consists of a series of subject areas and types of courses that have been agreed on by the University of California and the California community colleges. Because of course sequencing and the rigor of the program, students must fulfill the general education requirements prior to transfer.

Additional requirements are listed under Admission and Preparation for the Major in Curricula and Courses.

Major Requirements
There are two types of requirements that must be satisfied for award of a degree: preparation for the major and the major. See Nursing prelicensure major Requirements in Curricula and Courses for details.

Policies and Regulations
Degree requirements are subject to policies and regulations, including the following:

Student Responsibility
Students should take advantage of academic support resources, but they are ultimately responsible for keeping informed of and complying with the rules, regulations, and policies affecting their academic standing.

Study List
The presentation of study lists by the students and their acceptance by the school evidences an obligation on the part of the students to faithfully perform the designated work to the best of their ability. Withdrawal from, or neglect of, any course entered on the study list—or a change in program could lead to a delay in degree completion.

Students are expected to follow the course sequence specified for their program. After the first term, they may petition to carry a study list exceeding 20 units, provided they have an overall grade-point average of 3.0 (B) or better and have attained at least a 3.0 (B) grade-point average in the preceding term with all courses passed.

Minimum Progress
Students are expected to complete satisfactorily at least 36 units during any three consecutive terms in residence; they are placed on probation if they fail to pass these units. Students are subject to dismissal if they fail to pass at least 32 units in three consecutive regular terms in residence.

Concurrent Enrollment
Enrollment at a non-UC institution or UCLA Extension while enrolled at UCLA is not permitted except in extraordinary circumstances. No credit is given for courses taken concurrently elsewhere without the approval of the school.

Credit Limitations
The following credit limitations apply to all undergraduate students enrolled in the school:

Advanced Placement Examinations
Credit earned through the College Board Advanced Placement (AP) Examinations may not be applied toward the general education requirements. Portions of AP Examination credit may be evaluated by corresponding UCLA course numbers (e.g., History 1C). If students take the equivalent UCLA course, unit credit for such duplication is deducted before graduation. See the school AP table for UCLA course equivalents.

Counseling Services
The school gives direction and furnishes information to interested potential applicants to the BS program through admissions information sessions. The schedule for these sessions, program information, and applications are available on the school website.

On entry, students are assigned a faculty adviser to aid in planning their total program. Advisers and student affairs
officers continue meeting with students each term to evaluate progress, identify academic and personal needs and match them with available school and UCLA resources, confirm UC and course requirements, and maximize the students’ abilities to reach educational and professional goals. Due to the heavy course load that school programs require, students are advised against working full time.

Honors
Undergraduate students who achieve scholastic distinction may qualify for the following honors:

Dean’s Honors
The Dean’s Honors list recognizes high scholastic achievement in any one term. The following criteria are used to note Dean’s Honors on student records: a 3.915 grade-point average (GPA) in any one term, with at least 12 letter-graded units. The minimum GPA required is subject to change on an annual basis. Students are not eligible for Dean’s Honors in any given term if they receive an Incomplete or a Not Passed (NP) grade. Dean’s Honors are automatically recorded on the transcript for the appropriate term.

Latin Honors
Students who have achieved scholastic distinction may be awarded the bachelor’s degree with Latin honors. To be eligible, students must have completed 98 or more units for a letter grade at the University of California and must have attained an overall grade-point average at graduation that places them in the top 20 percent of the school graduates (GPA of 3.915 or better) for cum laude, the top 10 percent (GPA of 3.965 or better) for magna cum laude, or the top five percent (GPA of 3.985 or better) for summa cum laude. Coursework taken on the Education Abroad Program is applied toward Latin honors at graduation. The minimum GPAs required are subject to change on an annual basis. Required GPAs in effect in the graduating year (fall, winter, spring, summer) determine student eligibility. Students should consult their Degree Audits, or the Registrar’s honors web page, for the most current calculations of Latin honors.

Graduate Study
The Master of Science in Nursing (MSN) degree program offers prelicensure and postlicensure options. The master’s entry clinical nurse (MECN)/prelicensure program is designed for students with a bachelor’s degree in another discipline who wish to become registered nurses. The advanced practice registered nurse (APRN)/postlicensure program is for registered nurses with a bachelor’s degree in nursing who wish to prepare for an advanced practice role, such as nurse practitioner or clinical nurse specialist.

The PhD program, which includes an en-route MS option, prepares scholars who do original research, generate new theories, and build the scientific basis for professional nursing practice. Research is both basic and applied.

The DNP program prepares nurses who are currently functioning at an advanced level of practice as nurse practitioners, clinical nurse specialists, or nurse administrators. Leadership, health system knowledge, quality, and health care policy are critical content emphasized in the curriculum. The DNP degree is designed to meet the dynamic needs of the national health care system to improve quality of care, promote patient safety, and reduce cost.

Admission
Detailed information about the graduate academic programs is included in program requirements for UCLA graduate degrees.

For information on proficiency in English requirements for international graduate students, see Graduate Admission in Graduate Study.

Degree Requirements
For complete degree requirements, see program requirements for UCLA graduate degrees.

School of Theater, Film, and Television
Brian E. Kite, MFA, Interim Dean
School of Theater, Film, and Television
102 East Melnitz Building
310-825-5761
Information e-mail

The UCLA School of Theater, Film, and Television consists of the Department of Theater and the Department of Film, Television, and Digital Media. Both are recognized national centers for higher education in production and performance as well as history, theory, and criticism.

Whether exploring the ancient and sacred roots of theater or the latest secular rituals enacted by popular film, creating a dramatic character for the bare stage or a dramatic narrative on screen, writing scripts or scholarly articles, or making digital movies or designing websites, all students in the school study both the aesthetics and cultural significance of theater, film, and television.
Through an intensive multidisciplinary curriculum, the school defines the inherent differences of theater, film, television, and new media; affirms their similarities; and encourages their interaction. As expressive art forms, modes of communication, and cultural interventions, theater, film and television, and digital media have in common the ability and power to reflect and shape perception of a complex, diverse, and ever-changing world. As artists and scholars, faculty believe that the school has an obligation to reflect on this power and to use it responsibly.

Situated in the diverse and culturally rich environment of Los Angeles—and drawing on the many resources of the campus at large (including the Center for the Art of Performance at UCLA, Geffen Playhouse, and UCLA Film and Television Archive)—the school offers the ideal setting for students to engage in the study and practice of art forms essential to a healthy and dynamic society.

Departments and Programs

The Theater Department and the Film, Television, and Digital Media Department are essential components of the rich intellectual, cultural, and professional life of UCLA. Depending on the degree involved, school programs are either strongly professional in nature, or oriented toward advanced scholarly study and research in an atmosphere that recognizes and often draws on studio practice.

Students in undergraduate courses receive a broadly based, liberal arts education within the context of either theater or film and television.

The Master of Fine Arts (MFA) degree programs prepare talented and highly motivated students for careers in the worlds of theater, film, television, and digital production. The MA and PhD programs engage students in critical study and research of these media, including their history, aesthetics, and theory; and they prepare students for advanced research within the context of college and university teaching, as well as for writing and research in a variety of media-related professions.

In the Theater Department, approximately 300 undergraduate and 80 graduate students interact with over 18 faculty members, outstanding guests of national and international standing, and a professional staff of 35 in an exciting artistic community of theater production and study. The theater and performance studies program offers PhD degrees for advanced theater and performance. Resources include four Macgowan Hall complex theaters with the technologies needed for creation, control, and integration of scenery, lighting, and sound. Areas of emphasis in the Master of Fine Arts program include acting, design, directing, and playwriting.

The Film, Television, and Digital Media Department includes both production and critical studies programs, with approximately 275 graduate and 100 undergraduate students. Its 23 faculty members include leading scholars as well as members of the Los Angeles and international film and television professional communities. In production, graduate specializations are offered in the areas of film and television production, screenwriting, animation, and producing. The cinema and media studies program offers MA and PhD degrees for advanced scholarly study of film, television, and digital media. Department resources in Melnitz Hall include three sound stages; three television studios; extensive editing, scoring, and viewing facilities; a complete animation laboratory for traditional, stop-motion, and computer-generated animation; and a laboratory and research facility for digital media.

The MA and PhD programs are supported by UCLA library collections and the UCLA Film and Television Archive, the largest in the U.S. outside the Library of Congress. This archive forms a unique and priceless resource for research and classroom instruction. MA and PhD faculty members and students also participate in various campus organized research units.

Teaching Credentials

Students interested in obtaining instructional credentials for California elementary and secondary schools should contact the Teacher Education Program, 1009 Moore Hall.

Degrees

The School of Theater, Film, and Television offers the following degrees and undergraduate minors:

- Film and Television BA, MA, MFA, CPhil, PhD
- Individual Field BA
- Theater BA, MFA
- Theater and Performance Studies CPhil, PhD

Undergraduate Minors

- Film, Television, and Digital Media
- Theater

Undergraduate Admission

In addition to the UC undergraduate application, departments require applicants to submit additional supporting materials. Information on departmental requirements is available on the school admissions web page.
Undergraduate Degree Requirements

Students must satisfy UC requirements, school requirements, and department requirements for a Bachelor of Arts degree.

University Requirements

The University of California has two requirements that undergraduate students must satisfy in order to graduate: Entry-Level Writing or English as a Second Language, and American History and Institutions. See Degree Requirements in Undergraduate Study for details.

Students enrolled in English Composition 1A, 1B, and 2I must take each course for a letter grade.

School Requirements

There are seven requirements that must be satisfied for award of a degree.

Unit Requirement

Students must satisfactorily complete for credit a minimum of 180 units for the bachelor’s degree. At least 64 of the 180 units must be upper-division courses numbered 100 through 199. A maximum of 216 units is permitted. Students with Advanced Placement Examination or International Baccalaureate Examination (transfer) credit may exceed the unit maximum by the amount of that credit.

Scholarship Requirement

Students must earn at least a 2.0 (C) grade-point average in all courses undertaken at the University of California for receipt of the bachelor’s degree, and in all upper-division courses in the major, and in all courses applied toward the general education requirements.

Academic Residence Requirement

Students are in residence while enrolled and attending classes at UCLA with a declared major in the School of Theater, Film, and Television. Of the last 45 units completed for the bachelor’s degree, 35 must be earned in residence at the school. No more than 18 of the 35 units may be completed in UCLA summer sessions.

Courses offered by UCLA Extension may not be applied toward any part of the residence requirements.

Writing Requirement

Students must complete the UC Entry-Level Writing or English as a Second Language (ESL) requirement prior to completing the school writing requirement.

Students admitted to the school are required to complete a two-term writing requirement—Writing I and Writing II. Two courses in English composition are required for graduation. Both courses must be taken for a letter grade, and students must receive a C or better grade in each (a C– grade is not acceptable).

Writing I

The Writing I requirement must be satisfied within the first three terms of enrollment by completing English Composition 3, 3D, 3DX, 3E, or 3SL with a C or better grade (a C– or Passed grade is not acceptable).

The Writing I requirement may also be satisfied by scoring 4 or 5 on one of the College Board Advanced Placement Examinations in English; completing a course equivalent to English Composition 3 with a C or better grade (a C– or Passed grade is not acceptable) taken at another institution; or scoring 5, 6, or 7 on an International Baccalaureate Higher Level Examination.

Students whose native language is not English may need to take English Composition 1A, 1B, and 2I before enrolling in a Writing I course. All courses in the sequence must be passed with a C or better grade (a C– or Passed grade is not acceptable).
Writing II

The Writing II requirement must be satisfied within the first six terms of enrollment by completing one course from a faculty-approved list of Writing II courses; see the Registrar’s Writing II requirement web page for details. Courses that satisfy the requirement are denoted by a W suffix and are impacted. The course must be completed with a C or better grade (a C– or Passed grade is not acceptable).

Applicable Writing II courses may also fulfill the upper-division nonmajor requirement and, if approved for general education (GE) credit, may also fulfill a GE requirement. Transfer students with 90 or more units who have completed the Intersegmental General Education Transfer Curriculum (IGETC) will have satisfied the Writing I and Writing II requirements. No transfer student is admitted to the school without completing, with a C or better grade (a C– grade is not acceptable), a college-level writing course that Undergraduate Admission accepts as equivalent to English Composition 3.

Foreign Language Requirement

Students may meet the foreign language requirement by scoring 3, 4, or 5 on the College Board Advanced Placement (AP) foreign language examination in Chinese, French, German, Italian, Japanese, or Spanish, or scoring 4 or 5 on the AP foreign language examination in Latin; presenting a UCLA foreign language proficiency examination score indicating competency through level three; or completing one college-level foreign language course equivalent to level three or above at UCLA with a grade of Passed or C or better.

Transfer students with 90 or more units who have completed the Intersegmental General Education Transfer Curriculum (IGETC) will have satisfied the foreign language requirement.

International students may petition to use an advanced course in their native language for this requirement. Students whose entire secondary education has been completed in a language other than English may petition to be exempt from the foreign language requirement.

Courses that may be used to fulfill this requirement are published on the Registrar’s foreign language requirement web page.

Upper-Division Nonmajor Requirement

Students must complete at least three upper-division nonmajor courses (100-level) for a minimum of 12 units. Graduate (200-level) courses may not be applied toward this requirement.

A course used to satisfy the upper-division nonmajor requirement may also be used to satisfy the Writing II requirement.

A course used to satisfy the upper-division nonmajor requirement may not also be applied toward a foundation area in general education.

General Education Requirements

General education (GE) is more than a checklist of required courses. It is a program of study that reveals to students the ways that research scholars in the arts, humanities, social sciences, and natural sciences create and evaluate new knowledge; introduces students to the important ideas and themes of human cultures; fosters appreciation for the many perspectives and diverse voices that may be heard in a democratic society; and develops the intellectual skills that give students the dexterity they need to function in a rapidly changing world.

This entails the ability to make critical and logical assessments of information, both traditional and digital; deliver reasoned and persuasive arguments; and identify, acquire, and use the knowledge necessary to solve problems.

Foundations of Knowledge

General education courses are grouped into three foundational areas: Foundations of the Arts and Humanities, Foundations of Society and Culture, and Foundations of Scientific Inquiry.

Ten courses (48 units minimum) are required. GE-approved Writing II courses may fulfill an appropriate foundational area. See the foundational area descriptions below for a breakdown of courses required.

Courses listed in more than one category can fulfill GE requirements in only one of the categories. A course used to satisfy a major requirement may not also be applied toward a GE requirement.

Students who successfully complete a year-long GE cluster series fulfill the Writing II requirement and complete 40 percent of their general education requirements.

Foundations of the Arts and Humanities

Five 5-unit courses, with no more than two from any one subgroup:

- Literary and Cultural Analysis
- Philosophical and Linguistic Analysis
- Visual and Performance Arts Analysis and Practice

Courses in this area supply perspectives and intellectual skills necessary to comprehend and think critically about our situation in the world as human beings. In particular, courses furnish the basic means to appreciate and evaluate
the ongoing efforts of humans to explain, translate, and transform their diverse experiences of the world through such media as language, literature, philosophical systems, images, sounds, and performances. The courses introduce students to the historical development and fundamental intellectual and ethical issues associated with the arts and humanities and may also investigate the complex relations between artistic and humanistic expression and other facets of society and culture.

Foundations of Society and Culture
Three 5-unit courses, one from each subgroup and a third course from either subgroup:
- Historical Analysis
- Social Analysis
- Third course from either subgroup
Total = 15 units minimum

Foundations of Scientific Inquiry
Two courses (8 units minimum), one from each subgroup:
- Life Sciences
- Physical Sciences
Total = 8 units minimum

Total GE 10 courses/48 units minimum

A course taken to meet the Writing II requirement may not also be applied toward a GE requirement.

Courses in this area ensure that students gain a fundamental understanding of how scientists formulate and answer questions about the operation of both the physical and biological world. Courses also deal with some of the most important issues, developments, and methodologies in contemporary science, addressing such topics as the origin of the universe, environmental degradation, and the decoding of the human genome. Through lectures, laboratory experiences, writing, and intensive discussions, students consider the important roles played by the laws of physics and chemistry in society, biology, Earth and environmental sciences, and astrophysics and cosmology.

Foundations Course Lists
Creating and maintaining a general education curriculum is a dynamic process; consequently, courses are frequently added to the list. For the most current list of approved courses that satisfy the Foundations of Knowledge GE plan, consult with an academic counselor or see the master list.

Reciprocity with Other UC Campuses
Students who transfer to UCLA from other UC campuses or who change their major from the College or another UCLA school and have met all GE requirements prior to attending UCLA or changing their UCLA major are not required to complete the School of Theater, Film, and Television GE requirements. Written verification from the dean at the other UC campus or UCLA College or school is required. Verification letters should be sent to UCLA School of Theater, Film, and Television, Director of Student Services, Box 951622, Los Angeles, CA 90095-1622.

Intersegmental General Education Transfer Curriculum
Transfer students from California community colleges have the option to fulfill UCLA lower-division GE requirements by completing the Intersegmental General Education Transfer Curriculum (IGETC) prior to transfer. The curriculum consists of a series of subject areas and types of courses that have been agreed on by the University of California and the California community colleges. Although GE courses are degree requirements rather than admission requirements, students are advised to fulfill them prior to transfer. The IGETC significantly eases the transfer process, as all UCLA GE requirements are fulfilled when students complete the IGETC courses. Students who select the IGETC must complete it entirely before enrolling at UCLA. Otherwise, they must fulfill the School of Theater, Film, and Television GE requirements.

Department Requirements
Departments generally set two types of requirements that must be satisfied for award of a degree: preparation for the

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The ongoing efforts of humans to explain, translate, and transform their diverse experiences of the world through such media as language, literature, philosophical systems, images, sounds, and performances. The courses introduce students to the historical development and fundamental intellectual and ethical issues associated with the arts and humanities and may also investigate the complex relations between artistic and humanistic expression and other facets of society and culture.

Foundations of Society and Culture
Three 5-unit courses, one from each subgroup and a third course from either subgroup:
- Historical Analysis
- Social Analysis
- Third course from either subgroup
Total = 15 units minimum

Foundations of Scientific Inquiry
Two courses (8 units minimum), one from each subgroup:
- Life Sciences
- Physical Sciences
Total = 8 units minimum

Total GE 10 courses/48 units minimum

A course taken to meet the Writing II requirement may not also be applied toward a GE requirement.

Courses in this area ensure that students gain a fundamental understanding of how scientists formulate and answer questions about the operation of both the physical and biological world. Courses also deal with some of the most important issues, developments, and methodologies in contemporary science, addressing such topics as the origin of the universe, environmental degradation, and the decoding of the human genome. Through lectures, laboratory experiences, writing, and intensive discussions, students consider the important roles played by the laws of physics and chemistry in society, biology, Earth and environmental sciences, and astrophysics and cosmology.

Foundations Course Lists
Creating and maintaining a general education curriculum is a dynamic process; consequently, courses are frequently added to the list. For the most current list of approved courses that satisfy the Foundations of Knowledge GE plan, consult with an academic counselor or see the master list.

Reciprocity with Other UC Campuses
Students who transfer to UCLA from other UC campuses or who change their major from the College or another UCLA school and have met all GE requirements prior to attending UCLA or changing their UCLA major are not required to complete the School of Theater, Film, and Television GE requirements. Written verification from the dean at the other UC campus or UCLA College or school is required. Verification letters should be sent to UCLA School of Theater, Film, and Television, Director of Student Services, Box 951622, Los Angeles, CA 90095-1622.

Intersegmental General Education Transfer Curriculum
Transfer students from California community colleges have the option to fulfill UCLA lower-division GE requirements by completing the Intersegmental General Education Transfer Curriculum (IGETC) prior to transfer. The curriculum consists of a series of subject areas and types of courses that have been agreed on by the University of California and the California community colleges. Although GE courses are degree requirements rather than admission requirements, students are advised to fulfill them prior to transfer. The IGETC significantly eases the transfer process, as all UCLA GE requirements are fulfilled when students complete the IGETC courses. Students who select the IGETC must complete it entirely before enrolling at UCLA. Otherwise, they must fulfill the School of Theater, Film, and Television GE requirements.

Department Requirements
Departments generally set two types of requirements that must be satisfied for award of a degree: preparation for the
major (lower-division courses) and the major (upper-division courses). Preparation for the major courses should be completed before beginning upper-division work.

**Preparation for the Major**

A major requires completion of a set of courses known as preparation for the major, which should be completed before upper-division work is undertaken. Each department sets its own preparation for the major requirements; see Film, Television, and Digital Media or Theater in Curricula and Courses.

**The Major**

A major is composed of no fewer than 56 units, including at least 36 units of upper-division courses.

Students must complete their major with a scholarship grade-point average of at least 2.0 (C) in all courses in order to remain in the major. Each course in the school must be taken for a letter grade.

As changes in major requirements occur, students are expected to satisfy the new requirements insofar as possible. Hardship cases should be discussed with the department adviser, and petitions for adjustments should be submitted to the dean of the school when necessary.

Any department offering a major may require a general final examination.

**Double Majors**

Double majors in the School of Theater, Film, and Television and other academic units are not permitted.

**Policies and Regulations**

Degree requirements are subject to policies and regulations, including the following:

**Student Responsibility**

Students should take advantage of academic support resources, but they are ultimately responsible for keeping informed of and complying with the rules, regulations, and policies affecting their academic standing.

**Study List**

The study list is a record of classes that a student is taking for a particular term. Each term the study list must include from 12 to 19 units. The school has no provision for part-time enrollment. After the first term, students may petition to enroll in more than 19 units (up to 22 units maximum) if they have an overall grade-point average of 3.0 (B) or better and have attained at least a 3.0 (B) grade-point average in the preceding term with all courses passed. Excess units petitions must be filed and approved by the Student Services Office no later than the end of the third week of instruction.

First-term transfer students from any other UC campus may carry excess units on the same basis as students who have completed one or more terms at UCLA; however, they are not encouraged to do so.

**Minimum Progress**

During a regular term of enrollment, undergraduate students are required to enroll in a minimum of 12 units.

Students are expected to complete satisfactorily at least 36 units during any three consecutive terms in residence; they are placed on probation if they fail to pass these units. Students are subject to dismissal if they fail to pass at least 32 units in three consecutive regular terms in residence.

**Changing a Major**

Students in good academic standing who wish to change their major may petition to do so, provided they can complete the new major within the 216-unit limit. Petitions must be submitted to and approved by the department or committee in charge of the new major. Admission to certain majors may be closed or restricted; changes are normally not permitted if students are on probation or have begun their last term.

Students in the Theater major are not allowed to change their major to Film and Television at the end of their sophomore year.

**Concurrent Enrollment**

Enrollment at a non-UC institution or UCLA Extension while enrolled at UCLA is not permitted except in extraordinary circumstances. No credit is given for courses taken concurrently elsewhere without the approval of the school.

**Credit Limitations**

The following credit limitations apply to all undergraduate students enrolled in the school:

**Advanced Placement Examinations**

Credit earned through the College Board Advanced Placement (AP) Examinations may be applied toward certain UC/school requirements. Consult with a counselor in the Student Services Office to determine applicable credit. Portions of AP Examination credit may be evaluated by corresponding UCLA course numbers. If students take the equivalent UCLA course, unit credit for such duplication is
deducted before graduation. See the school AP table for UCLA course equivalents.

**Graduate Courses**

Undergraduate students who wish to take graduate courses (200 level) for credit toward the bachelor’s degree must petition for advance approval of the department chair and the dean of the school, and must meet specific qualifications. Courses numbered in the 300, 400, and 500 series are not open for credit to undergraduate students.

**UCLA Extension**

Extension courses with the prefix X on those numbered in the 1 through 199, 200, 300, 400, or 800 series may not be applied toward the degree.

**Upper-Division Tutorials**

Credit for upper-division tutorials numbered 195 through 199 is limited to a maximum of 8 units in a single term, and a maximum of 32 units total for a letter grade.

**Academic Advising Services**

The school offers advising, program planning in the major and general education requirements, and individual meetings with departmental counselors, including a yearly degree check. Prior to enrollment in classes, each new student is assigned to a counselor in the major department. For additional counseling information, contact the Student Services Office, 103 East Melnitz Building.

**Honors**

Undergraduate students who achieve scholastic distinction may qualify for the following honors and programs:

**Dean’s Honors**

The Dean’s Honors list recognizes high scholastic achievement in any one term. The following criteria are used to note Dean’s Honors on student records: a 3.937 grade-point average (GPA) in any one term, with at least 12 letter-graded units. The minimum GPA required is subject to change on an annual basis. Dean’s Honors are automatically recorded on the transcript for the appropriate term.

**Latin Honors**

Students who have achieved scholastic distinction may be awarded the bachelor’s degree with Latin honors. To be eligible, students must have completed 90 or more units for a letter grade at the University of California and must have attained an overall grade-point average (GPA) at graduation that places them in the top 20 percent of the school graduates (GPA of 3.937 or better) for cum laude, the top 10 percent (GPA of 3.972 or better) for magna cum laude, or the top five percent (GPA of 3.987 or better) for summa cum laude. Coursework taken on the Education Abroad Program is applied toward Latin honors at graduation. The minimum GPAs required are subject to change on an annual basis. Required GPAs in effect in the graduating year (fall, winter, spring, summer) determine student eligibility. Students should consult their Degree Audits, or the Registrar’s honors web page, for the most current calculations of Latin honors.

**Graduate Study**

The advanced degree programs offer graduate students with unique research opportunities when combined with special resources such as the Young Research Library, UCLA Film and Television Archive, Geffen Playhouse, Arts Library special collections, and UCLA exhibit and performance venues. Fellowships, grants, and assistantships are available through the dean of the Division of Graduate Education. Student scholarship awards are available through the School of Theater, Film, and Television.

**Admission**

In addition to requiring that applicants hold a bachelor’s degree from an accredited U.S. institution or an equivalent degree of professional title from an international institution, each department in the school has limitations and additional requirements. Detailed information can be found in program requirements for UCLA graduate degrees.

For information on proficiency in English requirements for international graduate students, see Graduate Admission in Graduate Study.

**Degree Requirements**

Requirements to fulfill each degree objective vary according to the degree and the department. For complete degree requirements, see program requirements for UCLA graduate degrees.
Curricula and Courses

COURSE INFORMATION
Departments and programs are listed alphabetically, with the College or school administering the program identified in the program heading. Curricula and courses are listed under each program. Every effort has been made to ensure the accuracy of the information presented. However, all courses, course descriptions, instructor designations, and curricular degree requirements described herein are subject to change or deletion without notice. Changes to course descriptions are available at the Registrar’s course descriptions web page. For current class offerings by term, see the Schedule of Classes.

For complete graduate degree requirements, see program requirements for UCLA graduate degrees.

Undergraduate Course Numbering
Undergraduate courses are classified as lower division and upper division. Lower-division courses numbered 1–99 are often surveys offering preliminary introduction to the subject field. They are designed primarily for freshmen and sophomores, though upper-division students may enroll for unit and grade credit. Lower-division courses may not be applied toward graduate degrees.

Upper-division courses numbered 100–199 are open to all students who have met the requirements stated in department requirements or the course description. Preparation generally includes at least one lower-division course in the subject field or two years of college work. With approval of the major department, graduate students may take 100-series courses toward satisfaction of master’s degree requirements.

Undergraduate Seminars and Tutorials
Fiat Lux freshman seminars (numbered 19) are taught by faculty in areas of their expertise. Fiat Lux—Let There be Light!

Sophomore seminars (numbered 88) are department-sponsored courses designed to provide sophomores with the opportunity to participate in small seminars to enhance writing, verbal, and analytical skills.

Honors seminars and tutorials (numbered 89/189 and 89HC/189HC) are primarily designed for students in the College Honors Program. They are adjunct to lecture courses and explore lecture topics in more depth through supplemental readings, papers, or other activities.

Student Research Program tutorials (numbered 99) offer students entry-level research experiences. Students serve as apprentices working with an individual faculty member or in a research group. Students are graded on a Passed/Not Passed (P/NP) basis.

Upper-division seminars (numbered 190–194) are small seminars with between 15 and 20 students that focus on research practice or issues. Many are designed to be taken along with a tutorial course in the 195–199 series.

Upper-division tutorials (numbered 195–199) offer advanced opportunities for research through faculty-supervised internships and apprenticeships as well as honors research, directed research, and senior projects. Courses are structured by the instructor and student at the time they are initiated and are open to juniors (with a minimum 3.0 grade-point average in the major field), seniors, and graduate students. To enroll, students submit a contract (through MyUCLA) and have it approved by both the instructor and department chair.

Note: For current course descriptions, see the Registrar’s course descriptions web page.

Graduate Course Numbering
Graduate courses numbered 200–299 are generally open only to graduate students who have completed basic undergraduate courses in the subject. Courses and seminars in the 200 series can fulfill the minimum graduate course requirement for any advanced degree.

With departmental and instructor consent, and subject to requirements in the appropriate College or school, undergraduate students may enroll in 200-series courses for unit credit toward the bachelor’s degree. If students take a graduate course as an undergraduate, they may not apply that same course later toward a higher degree.

Graduate courses numbered 300–399 are highly specialized teacher-training courses that are not applicable toward UC minimum requirements for graduate degrees. They are acceptable toward the bachelor’s degree only at the discretion of the individual College or school.

Graduate courses numbered 400–499 are designed for professional programs leading to graduate degrees other than the MA, MS, and PhD. These courses may not be used to satisfy minimum graduate course requirements for the MA or MS degree but may apply as electives.

Individual study and research courses numbered 500–599 are reserved for advanced study and are not open to undergraduate students. Courses are numbered as follows: 595/596, directed individual study or research; 597, preparation for master’s comprehensive or doctoral qualifying examination; 598, master’s thesis research and preparation; and 599, doctoral dissertation research and preparation.

Courses numbered 501 are not individual study and research but are cooperative programs held in conjunction with USC. See individual department sections for specific limitations on 500-series courses.

Note: These definitions do not apply to courses in the School of Law, which maintains its own course numbering system.

Temporary Course Offerings
Courses that are temporary in nature, such as one-term-only or one-year-only, are not in the catalog. Their descriptions can be found in the Schedule of Classes.

Concurrent and Multiple-Listed Courses
Concurrently-scheduled courses (identified by a capital C before the course number) are pairs of courses, usually within a single department or program, for which credit is given at two levels—undergraduate and graduate. Concurrently-scheduled courses are offered at the same time and place with the same instructor, but work levels and performance standards are evaluated differently for students at each level. (Concurrently-scheduled courses as described here should not be confused with concurrent courses offered through UCLA Extension.)

Multiple-listed courses (identified by a capital M before the course number) are courses offered jointly by more than one department and/or subject area. They need not have identical course numbers, but other aspects of the course—such as title, units, requisites, format, and level—must be the same. For example, Language in Culture is offered by the Anthropology Department (Anthropology M150) and the Linguistics Department (Linguistics M146). The course is listed under both departments.

Foreign Literature in English Translation
A list of courses offered by language and literature departments, that do not require reading knowledge of any foreign language, is available on the Registrar’s website.

UCLA Extension Courses
In general, students may not attend UCLA Extension for degree credit if they are enrolled in UCLA regular session at the same time. However, certain Extension courses (numbered 1–199), prefixed by XL or XLC in the Extension catalog, yield credit toward the bachelor’s degree. For details, see UCLA Extension in Policies and Regulations. Graduate students may petition to apply up to two XLC courses toward the master’s degree.
Air Force ROTC Program

Air Force ROTC offers selected students the opportunity to develop those attributes essential to positions of high responsibility as commissioned officers in the U.S. Air Force or Space Force. This includes understanding Air Force history, doctrine, operating principles, and national security policies; demonstrating the ability to apply modern principles of management and human relations in the Air Force environment; and mastering of leadership theory and techniques. Students must demonstrate dedication to their assignments, willingness to accept responsibility, and the ability to think critically and communicate with clarity and precision.

Undergraduate Study

The Air Force ROTC program is available to full-time students with at least three years of undergraduate and/or graduate study remaining and consists of one to two years of the General Military Course, or GMC (Aerospace Studies 1A, 1B, 1C, 2A, 2B, and 2C); followed by a two-year Professional Officer Course, or POC (Aerospace Studies 130A, 130B, 130C, 140A, 140B, and 140C). For students completing the program in four years, GMC participation requires one hour of academic class and two hours of leadership laboratory each week during the academic year. For students completing the program in three years, GMC participation requires taking one course from Aerospace Studies 1A, 1B, or 1C; one course from 20A, 20B, or 20C; and two hours of leadership laboratory each week during the academic year. Students incur no military obligation for GMC participation unless they qualify and accept an Air Force ROTC scholarship during or after their sophomore year.

Students who complete the GMC and wish to enter the POC attend a field training course the summer following GMC completion. There is no obligation to apply. U.S. citizenship is required. Students are selected on a competitive basis with consideration given to academic major, grade-point average, aptitude examination scores, performance during an officer board interview, and a physical fitness test. Students selected for summer field training are given meals, quarters, clothing, and travel and incidental expenses. Subjects covered at field training include junior officer training, aircraft and aircrew orientation, career orientation, survival training, basic functions, Air Force environment, and physical training.

POC participation requires three hours of academic class and two hours of leadership laboratory each week during the academic year. Students enrolled in the POC incur a military obligation and are paid a monthly stipend during the academic year. Graduation and successful completion of the POC leads to a commission as a second lieutenant. Cadets then report to one of the challenging assignments in the Air Force or Space Force.

Scholarships

ROTC scholarships are awarded on a competitive basis to U.S. citizens regardless of parents' income. Scholarships cover tuition, a book allowance, fees, and a tax-free monetary allowance during the academic year. Applications for scholarships may be obtained online or by calling 310-825-1742. Completed applications should be submitted prior to August 15 for early consideration and no later than December 1 of the year preceding college matriculation.

Aerospace Studies

Lower-Division Courses

Freshman Year

A. Leadership Laboratory. (No credit) Laboratory, three hours. Mandatory for and limited to Air Force ROTC cadets. Provides cadets with practical command and staff leadership experiences through performance of various tasks within framework of organized cadet corps. As integral part of aerospace studies curriculum, provides experiences designed to develop leadership potential and serves as orientation to active duty. P/NP grading.

1A-1B-1C. Heritage and Values. (2-2-2) Lecture, one hour. Introduction to U.S. Air Force. Examination of general aspects of Department of Air Force leadership, benefits, and opportunities for officers. Foundation for becoming airmen by outlining heritage and values. Provides historical perspective through lessons on war and U.S. military, Air Force operations, principles of war, and airpower. Provides students with understanding for employment of air and space power, from institutional, doctrinal, and historical perspective. Students are introduced to Air Force way of life and gain knowledge on what it means to be airmen. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

Sophomore Year

20A-20B-20C. Team and Leadership Fundamentals. (2-2-2) Lecture, one hour. Designed to provide fundamental understanding of both leadership and team building. Cadets are taught many layers of leadership, including listening, understanding themselves, being good follower and efficient problem solving. Students apply these leadership perspectives when completing team building activities and discussing conflict management. Demonstration of basic verbal and written communication skills. P/NP or letter grading.

Upper-Division Courses

130A-130B-130C. Air Force Leadership Studies. (4-4-4) Lecture, three hours. Requires: courses 1A, 1B, 1C, 2A, 2B, 2C. Designed to provide cadets with leadership overview. Basic leadership skills for cadets beginning leadership role in detachment. Lessons on military relationships and rules that military members must follow when interacting with enlisted members and officers. Continuation of advanced skills and ethics training in preparation for becoming officer and supervisor. Introduction to variety of leadership topics in preparation to be effective leaders. P/NP or letter grading.

140A-140B-140C. National Security Affairs/Preparation for Active Duty. (4-4-4) Lecture, three hours. Requires: courses 1A, 1B, 1C, 2A, 2B, 2C. Study of national security processes, regional studies, advanced leadership ethics, and Air Force doctrine. Special topics focus on military as profession, officership, military justice, civilian control of military, preparation for active duty, and current issues affecting military professionalism. Within this structure, continued emphasis on refining communication skills. P/NP or letter grading.

197. Individual Studies in Aerospace Studies. (2 or 4) Tutorial, three hours. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. As signed reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.
AFRICAN AMERICAN STUDIES
College of Letters and Science
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Box 951545
Los Angeles, CA 90095-1545

African American Studies
310-825-9821
Department e-mail
Cheryl L. Keyes, PhD, Chair

Faculty Roster
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Devon W. Carbado, JD (Honorable Harry Pregerson Endowed Professor of Law)
Yogita Goyal, PhD
Cheryl I. Harris, JD (Rosalinde and Arthur Gilbert Foundation Endowed Professor of Civil Rights and Civil Liberties)
Tyrone C. Howard, PhD (Pritzker Family Endowed Professor of Education to Strengthen Families)
Darnell M. Hunt, PhD
Marcus A. Hunter, PhD
Robin D.G. Kelley, PhD (Gary B. Nash Endowed Professor of U.S. History)
Yogita Goyal, PhD
Kathleen A. Lynne, PhD (Thomas E. Likka Professor of History)
Safiya U. Noble, PhD
Jenima Pierre, PhD
Brenda Stevenson, PhD (Nickoll Family Endowed Professor of History)
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Terence D. Keel, PhD
Kyle T. Mays, PhD
Urgi M. McMillan, PhD
Caroline A. Streeter, PhD
Courtney S. Thomas Tobin
Alden H. Young, PhD

Assistant Professors
Justin P. Dunnivant, PhD
Ugo F. Edu, PhD
Sobukwe O. Odinga, PhD

Overview
The Department of African American Studies offers a Bachelor of Arts (BA) degree, an undergraduate African American Studies minor, a Master of Arts (MA) degree, and a concurrent degree program (African American Studies MA/ Juris Doctor). A major or minor in this field offers a broadening of cultural experiences and perspectives for those seeking more information about African Americans and the African diaspora. Career-wise, all students profit from African American studies courses in an era when employers and academic institutions are actively seeking those with multicultural and interdisciplinary skills and backgrounds.

Mission
The fundamental goal of the African American Studies curriculum is to offer students a comprehensive and multidisciplinary introduction to the crucial sociocultural and social justice issues facing African Americans and their counterparts in other areas of the African diaspora today. The curriculum is designed to meet this goal in two primary ways. First, it offers students an interdisciplinary exposure to particular features of the African American experience. Core courses offer an in-depth understanding of historical, anthropological, sociological, psychological, economic, and political aspects of African America. The curriculum also offers opportunities to study the literary, musical, and artistic heritage of peoples of African descent. Second, students analyze key issues through additional courses that bring to bear concepts, theories, and methods of traditional academic disciplines in areas such as cultural analysis and production, social justice, and public policy. Students may also do individualized study with a professor and/or an internship for course credit.

Undergraduate Major
African American Studies BA
Students are encouraged to engage in a culminating activity, such as an internship, independent study, honors thesis, service learning course, Center for American Politics and Public Policy program, University of California Center Sacramento program, Education Abroad Program, or other African American studies-related project or performance course.

Learning Outcomes
The African American Studies major has the following learning outcomes:
- Critical understanding of key historical moments in the field
- Critical engagement with humanistic and social-scientific approaches to the study of the African American experience
- Ability to perform research and use critical writing skills
- Critical understanding of the concepts of race and racism, and their relationship to other identities such as class, gender, and sexual orientation
- Knowledge of key African American aesthetic, literary, musical, and other cultural traditions
- Knowledge of key social-scientific theories that explain and describe the African American experience

Entry to the Major
Admission
To be admitted to the major, students must have completed African American Studies 1, be in good standing, and formally register with the department. Students are encouraged to declare their major as early as possible and discuss their proposed course plan with the department undergraduate adviser.

Transfer Students
Transfer applicants to the African American Studies major with 90 or more units must complete the following introductory courses if possible prior to admission to UCLA: one African American studies or civilizations of Africa course or equivalent.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements
Preparation for the Major
Required: African American Studies 1, 96W, and one course selected from 2A, 2B, 2C, M5, 6, M116A, or M116B.

The Major
Required: Eleven upper-division courses as follows: (1) four courses in one area of concentration; (2) four courses, two from each area, selected from the two areas not selected in (1); (3) two additional upper-division elective courses in African American studies (minimum 4 units excluding 189SA, 188SB, 188SC, 189, 189HC, and 195); (4) one senior capstone seminar: African American Studies C191.

Preparation for the Major

Honors Program
Students must take three-quarter African American Studies 198A, 198B, 198C (independent study courses) with an approved professor who oversees the thesis requirement.

Policies
The Major
No more than 8 graded units of African American Studies courses (minimum 4 units excluding 189SA, 188SB, 188SC, 189, 189HC, and 195) may be applied toward the major.

Students must have an overall grade-point average of 2.0 or better.
Undergraduate Minor

African American Studies Minor

The African American Studies minor is designed for students who wish to augment their major program of study with courses from various disciplines germane to African American studies.

Admission

To enter the minor, students must be in good academic standing (2.0 grade-point average), have completed 45 units, and file a petition with the African American Studies student affairs officer.

The Minor

Required Lower-Division Courses (9 to 10 units): Two courses from African American Studies 1, 2A, 2B, 2C, M5, 6, M10A.

Required Upper-Division Courses (20 to 25 units): Five upper-division African American studies courses.

Policies

No more than 4 graded units of African American Studies 195, 197, and 199 may be applied toward the minor.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor, and at least 16 units applied toward the minor must be taken in residence at UCLA. Transfer credit for any of the above is subject to program approval; consult with the student affairs officer before enrolling in any courses for the minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Major

African American Studies MA

Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Concurrent Degree Program

Concurrent degree programs allow students to reduce the number of courses required for two degrees, since some courses may apply to both degrees.

- African American Studies MA/Juris Doctor

African American Studies Lower-Division Courses

1. Introduction to Black Studies. (5) Lecture, three hours; discussion, one hour. Introduction of methods, theories, conceptual frameworks, and key debates in black studies. Intertwining of how race structures notions of identity and meaning of blackness in relation to class, gender, and sexuality; essential role of African people in development of capitalism, liberalism, and democracy; what various disciplinary lenses and epistemologies (history, literature, sociology, geography, cultural studies, political theory, philosophy, etc.) reveal about experiences of black people in modern world. Key thinkers and ideas from across humanities and social sciences are highlighted. P/NP or letter grading.

2A. Africa and Middle East. (4) Lecture, three hours; discussion, one hour. Exploration of historical connectivities between Africa and Middle East as concepts, geographic expressions, homelands, and sites of diaspora. Examination of changing definitions and connections between Africa and Middle East from ancient world until present. Students learn how concepts have changed and are constantly changing over time. Study of how Africa and Middle East fit into alternative concepts such as ancient world, Islamic world, Muslim world, or Third World. Examination of legacies of earlier trade networks, particularly slave trade, on these regions. Examination of role countries like Egypt, situation on African continent but considered Middle Eastern play, in African-Arab or African/Middle Eastern cultures. In-depth exploration of how European imperialism impacted these worlds, and how process of decolonization united them. Examination of processes of immigration and emigration across these regions. P/NP or letter grading.

2B. Race and U.S. Military Intervention in Africa. (5) Lecture, three hours; discussion, one hour. Survey of U.S. security policy toward Africa from Cold War to present. Emphasis of racial hierarchies that have influenced U.S. strategic priorities, threat assessments, and military initiatives throughout Africa. Special attention to U.S. covert operations and security alliances in Africa. Examination of impact of U.S. security policies in peace, conflict, and governance in Africa. Focus on change and continuity in Black transnational responses to U.S. security initiatives in Africa, particularly during Cold War and War on Terror. P/NP or letter grading.

2C. Black Folks Kung Fu Fightin’: Black America, Martial Arts, and Popular Culture. (5) Lecture, three hours; discussion, one hour. Exploration of longer history of Black Americans and their relationship to martial arts; who some of key players are; how Black folks’ engagement with martial arts has been represented in popular culture; connections of race, class, and gender through martial arts. Analysis of history of martial arts in Black America from post-World War II era to present. Using books and articles, movies and television shows, and other popular cultural venues, students develop critical analytical skills to understand how race, gender, expressive culture, and martial arts operate together to form understanding of Black American experience. P/NP or letter grading.

M5. Social Organization of Black Communities. (5) Lecture, four hours; discussion, one hour. Field trips, Analysis and interpretation of social organization of black communities, with focus on origins and development of black communities, competing theories and research findings, defining characteristics and contemporary issues. P/NP or letter grading.

6. Trends in Black Intellectual Thought. (5) Lecture, three hours; discussion, one hour. Overview of major intellectual trends that have shaped ways in which African Americans think and experience the world, particularly during Cold War and War on Terror. P/NP or letter grading.

M7A-M7B-M7C. Elementary Yoruba. (4-4-4) (Same as International and Area Studies M7A-M7B-M7C.) Lecture, five hours. Course M7A is requisite to M7B, which is requisite to M7C. Introduction to Yoruba, one of major languages of West Africa, which is spoken widely throughout southwest Nigeria, Benin, and Togo. Coverage of basic Yoruba grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

M9A-M9B-M9C. Elementary Amharic. (4-4-4) (Same as International and Area Studies M9A-M9B-M9C.) Lecture, five hours. Course M9A is requisite to M9B, which is requisite to M9C. Introduction to Amharic, Semitic language that is official language of Ethiopia. Coverage of basic Amharic grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

M10A. History of Africa to 1800. (5) (Same as History M10A.) Lecture, three hours; discussion, one hour. Exploration of development of African societies from earliest times to late 18th century. P/NP or letter grading.

M18. Leadership and Student-Initiated Retention. (2) (Same as American Indian Studies M18, Asian American Studies M18, and Chicana/o and Central American Studies M18.) Seminar, two hours. Limited to freshmen/sophomores/first-year transfer students. Not open for credit to students with credit for course M118. Exploration of issues in retention at UCLA through lens of student-initiated and student-run programs, efforts, activities, and services. Focus on populations with historically low graduation rates targeted by Campus Retention Committee. May not be applied toward departmental major or minor elective requirements. May be repeated once for credit. Letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per quarter unit. Entry-level research for upper-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

M102. Culture, Media, and Los Angeles. (6) (Same as Asian American Studies M160 and Honors Colle-gium M102.) Lecture, four hours; screenings, two hours. Designed for juniors/seniors. Role of media in society and its influence on contemporary cultural environment, specifically in Los Angeles; issues of representation as they pertain to race, ethnicity, gender, and sexuality. P/NP or letter grading.
M103A. African American Theater History: Slavery to Mid-1800s. (4) (Same as Theater M103A.) Lecture, three hours. Designed for juniors/seniors. Exploration of all aspects of theater history from when African American play and performance was developed and performed by African American artists in America from slavery to mid-1800s. Letter grading.

M103B. African American Theater History: Minstrel Stage to Rise of American Musical. (4) (Same as Theater M103B.) Lecture, three hours. Designed for juniors/seniors. Exploration of extant materials on history and literature of theater as developed and performed by African American artists in America from slavery to mid-1800s. Letter grading.

M103E. Modern African American Drama: Harlem Renaissance to Black Lives Matter and Beyond. (4) (Same as Theater M103E.) Lecture, three hours. Survey and examination of African American plays from 1920s until birth of modern civil rights era. Examination of socio-historical context out of which plays were created and critical essays that illustrate development of African American playwrights and their significant involvement in creation of diversified American theatrical tradition. Letter grading.

M103L. Contemporary Black Theater: Modern Civil Rights Era to Black Lives Matter. (4) (Same as Theater M103L.) Lecture, three hours. Examination of Black theater from Black Arts Movement of 1960s to present. Exploration of social historical implications of work, and aesthetic experimentation of contemporary African American playwrights and movements. Letter grading.

M104A. Early African American Literature. (5) (Same as English M104A.) Lecture, four hours; discussion, one hour (when scheduled). Enforcedquisite: English Composition 3 or 3H. Introductory survey of African American literature from 18th century through World War I, including oral and written forms (folktales, spirituals, sermons; fiction, poetry, essays), by authors such as Phillis Wheatley, Frances Harper, Frederick Douglass, Harriet Jacobs, Charles Chesnutt, Booker T. Washington, and Pauline Hopkins. P/NP or letter grading.

M104B. African American Literature from Harlem Renaissance to 1960s. (5) (Same as English M104B.) Lecture, four hours; discussion, one hour (when scheduled). Enforcedquisite: English Composition 3 or 3H. Introductory survey of African American literature from New Negro Movement of post-World War I period to 1960s, including oral materials (Ballads and Blues) and fiction, poetry, and essays by authors such as Jean Toomer, Claude McKay, Langston Hughes, Nella Larsen, Zora Neale Hurston, Richard Wright, Ann Petry, James Baldwin, Gwendolyn Brooks, and Ralph Ellison. P/NP or letter grading.

M104C. African American Literature of 1960s and 1970s. (5) (Same as English M104C.) Lecture, four hours; discussion, one hour (when scheduled). Enforcedquisite: English Composition 3 or 3H. Introductory survey of African American literary expression from late 1950s through 1970s. Topics include rise of Black Arts Movement of 1960s and emergence of black women’s writing in early 1970s, with focus on authors such as Lorraine Hansberry, Amiri Baraka, Nikki Giovanni, Alice Walker, Toni Morrison, Ishmael Reed, Amiri Baraka, and Ernest Gaines. P/NP or letter grading.

M104D. Contemporary African American Literature. (5) (Same as English M104D.) Lecture, four hours; discussion, one hour (when scheduled). Enforcedquisite: English Composition 3 or 3H. Introductory topicselection course that provides opportunity to cover African American literature from wide range of theoretical, historical, formal, and thematic perspectives. Topics may include African American autobiographies, 20th-century African American fiction, black diaspora literature, postmodern African American fiction, Afro-Futurism, and African American satire. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M105A. Ideology and Black Consciousness. (4) Lecture, three hours; discussion, one hour. How do we know what we know? Why do we think what we think? Where does our knowledge of self come from? Introduction and enables the course to begin further to answer such questions of consciousness, especially as they concern status of Black people in contemporary racial-economic context of U.S. and elsewhere in Africa. Black reparations; impact of emancipation on imperialism; role of land, labor, and resources in history of colonization; Black labor migration in early-20th-century US. Workers’ ideas of worker self-management as Black critique of capitalism; neocolonialism and reorganization of capital accumulation in Caribbean and Africa; and Reconstitution of race under neoliberalism. P/NP or letter grading.

M105B. Issues in Pan-African Biography and Autobiography. (4) Seminar, four hours. Introduction of history and uses of autobiographies from its origins in 19th century. Critical reading of biographical and autobiographical texts to deepen understanding of major themes and critiques of Pan-African thought, including those of race and racial formation, gender and sexuality, capitalism and labor exploitation, and nationalism and state repression. Application of history and critical readings to students’ own lives and family history through researching and writing short autobiographical text. Students gain experience in conducting interviews and oral histories and genealogical and archival research. P/NP or letter grading.

M105C. Africa, African Americans, and History of Capitalism. (4) Lecture, three hours; discussion, one hour. Examination of role of African descent have had in history and political economy of capitalism since its origins in institutions of slavery and transatlantic trade. Addresses relationship between capitalism and slavery, and issues including incorporation of free Black labor into post-slavery regimes of capitalism acumulation of debt, rural exodapse, and Black reparations; impact of emancipation on imperialism in Africa; role of land, labor, and resources in history of colonization; Black labor migration in early-20th-century US. Workers’ ideas of worker self-management as Black critique of capitalism; neocolonialism and reorganization of capital accumulation in Caribbean and Africa; and Reconstitution of race under neoliberalism. P/NP or letter grading.


M106. Militarism, International Security, and African American Political Thought. (4) Lecture, three hours; discussion, one hour (when scheduled). Examination of trends in African American political thought regarding origins of war and international relations from World War I to present. African American support for and resistance to U.S. military and military policy central to this inquiry. Emphasis on African American political appraisals of U.S. wars, and nexus between U.S. military conflicts abroad and U.S. racial politics at home. Special attention to situations in African America, Middle East, and Asia and implications of war and peace. P/NP or letter grading.

M110. Cultural History of Rap. (5) (Same as Ethnomusicology M110 and Global Jazz Studies M110.) Lecture, four hours; discussion, one hour. Introduction to development of rap music and hip-hop culture, with emphasis on musical and verbal qualities, philosophical and political ideologies, gender representation, and influences on cinema and popular culture. P/NP or letter grading.

M110B. Reproducing While Black: Politics of Black Reproduction. (4) Seminar, three hours. Interdisciplinary exploration of experiences of Black reproduction, globally. Investigation of stakes of Black repro-
as black women’s participation in and challenge to social movements, including suffrage, women’s liberation, civil rights, and black power. Investigation of black women’s intellectual history, and their cultural productions. Letter grading.

M142. Race, Gender, and Punishment. (4) Same as Lesbian, Gay, Bisexual, Transgender, and Queer Studies M142.) Seminar, four hours. Interdisciplinary examination of the racial and gender construction of modern prison industrial complex in U.S., with attention to impact of prison industrial complex on immigrants, including undocumented residents, home- less people, and African Americans, transgender nonconforming and lesbian, gay, bi-sexual, and transgender communities. Why does U.S. have largest prison population in world? What historical and political conditions led to rise in mass incarceration in U.S. prison population? What policies have fueled mass imprisonment? Who is imprisoned? How have politicians used imprisonment as response to economic transformations and perceived social disorders? How is current crisis analogous to or distinct from regimes of racialized punishment in prior historical moments? Letter grading.

M144. Ethnic Politics: African American Politics. (4) (Same as African American Studies M144.) Lecture, three or four hours; discussion, one hour (when scheduled). Preparation: one 140-level political science course or one upper-division course on race or ethnicity from history, African American Studies, Sociology, Political Science 40. Designed for juniors/seniors. Emphasis on dynamics of minority group politics in U.S., touching on conditions facing racial and ethnic groups in the U.S. Contemporary issues being primary case for analysis. Three primary objectives: (1) to provide descriptive information about social, political, and economic conditions of black community, (2) to analyze important political issues facing black Americans, and (3) to sharpen students’ analytical skills. P/NP or letter grading.


M150D. Recent African American Urban History: Funk Music and Politics of Black Popular Culture. (4) (Same as Political Science M150D.) Lecture, three or four hours, discussion, one hour (when scheduled). Funk music, funk music as funtkin, funk funk funk. Funk music as an important genre in the history of music. Funk music as a reflection of the social and political struggles of the African American community. The impact of funk music on African American politics and culture. P/NP or letter grading.

M154C. Black Experience in Latin America and Caribbean I. (4) (Same as Political Science M154C.) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Exploration of musical genres known as funk that emerged in its popular form during late 1950s and 1960s. Funk music, funk music as a reflection of the social and political struggles of the African American community. The impact of funk music on African American politics and culture. P/NP or letter grading.

M154D. Black Experience in Latin America and Caribbean II. (4) (Same as Political Science M154D.) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Emphasis on issues regarding race and ethnicity in Latin America, with emphasis on comparisons to U.S. and within Latin America. Covering populations of African and Caribbean origins, with emphasis on former P/NP or letter grading.

M155. Afro-Latino/a Experience(s) in U.S. (4) (Same as Chicana/o and Central American Studies M155.) Lecture, four hours; discussion, one hour (when scheduled). Focus on Afro-Latino/a experience in U.S. through exploration of its historical roots and contemporary forms. How colorism in Latin America and U.S. influence Afro-Latino/a identity. Regional differences and different types of Afro-Latino/as that include Blaxicans, Nuyoricanos, Afro-Cubans, and others are taken into account. Discussion of themes that include feminism, politics, culture, music, and identities in order to explore the influence of Afro-Latinos/as in U.S. yesterday and today. P/NP or letter grading.

M156A. Comparative Slavery Systems. (4) (Same as History M156A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of the impact of slavery on African, American, Latin American and European slavery systems, with emphasis on outlining similarities and differences among legal status, treatment, and slave cultures of North American, Caribbean, and Latin American societies. P/NP or letter grading.

M155B-M156C. Introduction to Afro-American History. (4–4) (Same as History M155B-M156C.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of Afro-American experience, with emphasis on three great transitions of Afro-American life: transition from Africa to New World slavery; transition from slavery to freedom, and transition from rural to urban milieus. P/NP or letter grading.

M159. American African Nationalism in First Half of 20th Century. (4) (Same as History M159.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Critical examination of the American African Nationalism in first half of 20th century for national/group cohesion through collectively built institutions, associations, organized protest movements, and ideological self-definition. P/NP or letter grading.

M159P. Constructing Race. (4) (Same as Anthropology M159P and Asian American Studies M159P.) Lecture, three hours; discussion, one hour (when scheduled). Excessive racialized, socially constructed category, from anthropological perspective. Consideration of development of racial categories over time and in different regions, racial passing, multiracial identity in U.S., whiteness, race in popular culture, and race and identity. P/NP or letter grading.


M165. Sociology of Race and Labor. (4) (Same as Labor Studies M165 and Sociology M165.) Lecture, three hours; discussion, one hour (when scheduled). Focus on labor movement, employment, and U.S. labor movement. Analysis of underlying racial divisions in workplace and how they evolve over time. Exploration of circumstances under which workers and unions have excluded people of color from jobs and unions, as well as circumstances under which workers and unions have organized people of color into unions in efforts to improve their wages and working conditions. Impact of globalization on these dynamics. P/NP or letter grading.

M166. Future of Work in Decarcerated California. (4) (Same as Labor Studies M166.) Seminar, three hours. Limited to students in Community Scholars program. Exploration of scope of employment and nature of jobs that are attached to current use of mass incarceration in California, with focus on Los Angeles county. Study of history and evolution of carceral system and its relationship to oppression of Black people, particularly through U.S. carceral system. Exploration of history of employment discrimination against Black workers and how successful demand for unionized government jobs (public sector work) evolved into a productive anti-carceal movement, especially by people of color, in existing carceral regimes, and its impact on individual worker wellness and community well-being. Examination of tension between working to decarcerate California and those to prevent downward mobility of workers of color recruited by state to carry out failed policies of war on drugs. Concurrently scheduled with course C266. P/NP or letter grading.

CM166B. Future of Work in Decarcerated California II: Applied Research and Policy Analysis for Implementation of Justice Transformation. (4) (Same as Labor Studies M166B.) Seminar, three hours. Limited to those enrolled in Community Scholars program. Requisite: course CM166. Second course in two-quarter participatory action research program that partners students with community-based change agents. Students use research to develop projects that build up of undergraduate and graduate students and community members. Students contribute to development of participatory action research platform that centers recommendations of formerly employed and formerly incarcerated people in broader community vision for transition to decarcerated workforce. Concurrently scheduled with course C266B. P/NP or letter grading.

M167. Afro-American Woman in U.S. (4) (Same as Chicana/o and Central American Studies M167.) Lecture, three hours. Development of theoretical and practical understanding of worker center movement, with focus on historical factors that have led to emergence and growth of worker centers. Role of worker centers in promoting multicultural and multi-racial campaigns for workplace and economic justice. Transnational cross-border solidarity issues and rights of undocumented workers. P/NP or letter grading.

M170A. Diasporic Nonfiction: Media Engagements with Memory and Displacement. (4) (Same as African American Studies M170A and Central American Studies M170A.) Seminar, three hours. Video production course, with emphasis on autobiographical, critical, and performance-based narration of nonfictional media in drawing on practices of diasporic filmmakers who have grappled with suppressed collective memories of displacement, trauma, exile, and migration. What does it mean to make films about memories that are direct or ties to remember being cannot be seen? Introduction to concepts from films and readings. Production assignments and screenings, with focus on questions of how to approach history, memory, and lived experience according to perspectives and interests of diasporic subjects. In Progress grading (credit to be given only on completion of course M170B).

M170B. Diasporic Nonfiction: Media Engagements with Memory and Displacement II. (4) (Same as African American Studies M170B and Central American Studies M170B.) Seminar, three hours. Enforced requisite: course M170A. Students complete 20- to 30-minute video projects about issues or experiences central to everyday lives of collectives of diasporic peoples. They learn to provide, record, edit, and distribute one socially engaged nonfiction video and draw on their experiences from course M170A in writing voiceover, choreographing dances, designing public performances, interviewing, and recording everyday life. P/NP or letter grading.

M172. Afro-American Woman in U.S. (4) (Same as Chicana/o Studies M172 and Psychology M172.) Lecture, two and one half hours. Designed for juniors/seniors. Impact of social, psychological, political, and economic forces which impact on interpersonal relationships of Afro-American and members of large society and as members of their biological and ethnic group. P/NP or letter grading.

M173. Nonviolence and Social Movements. (4) (Same as Chicana/o and Central American Studies M173 and Labor Studies M173.) Seminar, three hours; discussion, one hour. Overview of nonviolence and its impact on social movements both historically and in its contemporary context in the present society, featuring lectures, conversations, films, readings, and guest speakers. Exploration of some historic contributions of civil rights struggles and role of nonviolent action throughout recent U.S. history. Examination of particular role of nonviolence project today. Impact of social change organizing in Los Angeles. P/NP or letter grading.

174. Intraracial Differences in 20th-Century Black American History. (4) Lecture, three to four hours. Focus on evolution of black divergence within African American community by focusing on evolution of differences—specifically class differences—that have minimized black progress when compared with other races and cultures as Asians and Jews. Examination of origins and
plight of lower-class blacks in stark juxtaposition with black leadership and African Americans occupying higher socioeconomic levels. Letter grading.

175. Racial and Ethnic Disparities in Healthcare. (5) Lecture, four hours. Prerequisite: Consent of instructor; open to students who are seeking to become healthcare professionals so they understand importance of how race and ethnicity impact delivery of healthcare. Focus on need to increase diversity and racial and ethnic representation of workforce as means to address health disparities. Letter grading.

176. Race, Racism, and Law. (4) Lecture, four hours; discussion, one hour. Throughout American history, race relations have been inextricably linked to law. Both perpetuation and struggle against racism have involved various legal institutions, especially U.S. Supreme Court. Lawyers on all sides have often played pivotal roles in establishing legal standards defining political, economic, social, and psychological status of African Americans (and other racial and ethnic minorities). Historical overview and in-depth examination of selected major highlights of these legal developments, including Constitutional sources of discrimination in U.S. P/NP or letter grading.

177. African Americans in Higher Education. (4) Lecture, four hours; discussion, one hour. Limitation of access and equity in higher education. Critical discussion of how racial and ethnic minorities experience challenges facing black students at predominantly white institutions (PWIs), ways in which Proposition 209 has affected black student community, spaces on and off campus for black students, and issues of access and equity in higher education. Critical discussions about student experiences/concerns/challenges at UCLA, addressing specific strategies for success, and noting places that provide context for students from underrepresented backgrounds at predominantly white universities. Letter grading.

M178. Sociology of Caribbean. (4) (Same as Sociology M178.) Lecture, three hours; discussion, one hour. Historical sociological period of Caribbean, with emphasis on colonialism and decolonization, development and underdevelopment, race-making institutions and evolution of race relations, nationalism and migration. Letter or P/NP grading.

M179A. Topics in African American Literature. (5) (Same as English M191A.) Seminar, three or four hours. Enforced requisite: English Composition 3 or 3H. Variable specialized studies course in African American literature. May include Harlem Renaissance, African American literature in Nadir, black women’s writing, contemporary African American fiction, African American poetry. May be repeated for credit with topic or instructor change. P/NP or letter grading.

184A. Research in Black Life, Institutions, and Culture I. (3) Seminar, three hours. Interdisciplinary overview of Black studies research perspectives and research methods. P/NP or letter grading.

184B. Research in Black Life, Institutions, and Culture II. (4) Lecture, three hours; discussion, one hour. Limited to students enrolled in Bunche fellows research program. Continuation of interdisciplinary overview of Black studies research perspectives and research methods. Survey of Black studies research perspectives, methods, and findings. Covers voluminous research and analysis that provides context for students from underrepresented backgrounds at predominantly white universities. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

199. Directed Research or Senior Project in Afro-American Studies. (4) Seminar, three hours. Limited to juniors/seniors. Development and completion of honors thesis or comprehensive research project under direct supervision of faculty member. May be repeated for credit. Individual contract required. P/NP or letter grading.

M194B. Culture, Gender, and Human Development Research Group Seminars (5) (Same as Education M131B.) Seminar, three hours; laboratory, two hours (when scheduled). Prerequisite: Education 180. Research seminar designed to provide opportunity to combine theory and practice in study of human development in educational contexts. Focus on relationship between theories of development, culture, and gender. Letter grading.

M194C. Culture, Communications, and Human Development Research Group Seminars (5) (Same as Education M131C.) Seminar, three hours; laboratory, two hours (when scheduled). Prerequisite: Education 180. Research seminar designed to provide opportunity to combine theory and practice in study of human development in educational contexts. Focus on relationship between theories of development, culture, and gender. Letter grading.

195. Community or Corporate Internships in Afro-American Studies. (4) Tutorial, four hours. Preparation: 3.0 grade-point average in major. Limited to juniors/senior majors. Internship in supervised setting in community agency or business. Students meet on regular basis with instructor and provide periodic reports of their experience. Eight units may be applied toward major requirements. Letter grading.

196. Research Apprenticeship in Afro-American Studies. (4) Tutorial, three hours. Limited to juniors/seniors. Entry-level research apprenticeship under guidance of faculty mentor affiliated with Afro-American Studies major or minor. Course project culminating in term paper in African American studies or related field required. Research may be in part or totally in relation to faculty member’s research. May be repeated for credit. Individual contract required. Letter grading.

197. Individual Studies in Afro-American Studies. (2 to 8) Tutorial, four hours. Preparation: 3.0 grade-point average in major. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Cursory and tangible evidence of mastery of subject matter required. Eight units may be applied toward major requirements. May be repeated for credit. Individual contract required. P/NP or letter grading.

198. Honors Research in Afro-American Studies. (2 to 4) Tutorial, four hours. Limited to juniors/seniors. Development and completion of honors thesis or comprehensive research project under direct supervision of faculty member. May be repeated for credit. Individual contract required. Letter grading.

199. Directed Research or Senior Project in Afro-American Studies. (2 to 4) Tutorial, to be arranged. Limited to juniors/seniors. Development and completion of honors thesis or comprehensive research project under direct supervision of faculty member. May be repeated for credit. Individual contract required. P/NP or letter grading.

M194A. Language, Literacy, and Human Development Research Group Seminars (5) (Same as Education M194A.) Seminar, two hours (when scheduled). Prerequisite: Education 180. Research seminar designed to provide opportunity to combine theory and practice in study of human development in educational contexts. Focus on relationship between theories of development, culture, and language. Letter grading.

199. Directed Research or Senior Project in Afro-American Studies. (2 to 4) Tutorial, to be arranged. Limited to juniors/seniors. Development and completion of honors thesis or comprehensive research project under direct supervision of faculty member. May be repeated for credit. Individual contract required. Letter grading.

194. Research in Black Life, Institutions, and Culture III: Comparative Black Studies Research Perspectives and Methods. (4) Seminar, three hours. Limited to students enrolled in Bunche fellows research program. Covers voluminous, complex materials in relatively short period of time. Operates as grade-level, professional seminar, requiring stu-
Graduate Courses

M200A. Advanced Historiography: Afro-American. (4) (Same as History M200V.) Seminar, three hours. May be repeated for credit. S/U or letter grading.

M200B. Political Economy of Race. (4) (Same as History M200V.) Seminar, three hours. Experiments in the historiography of history of capitalism and history of African diaspora, especially in their overlapping concerns with organization of race and racial states in context of empowerment of modern imperialism and emergence of global Black resistance to both. Themes and topics considered may include capitalism and question of slavery; law, regulations, and legal organization of markets and nations; uneven development and nature of Black sovereignty; history of regimes of gender and sexuality in social and capital reproduction; modalities of capital accumulation and production of space; racial violence and territorial expansion; emancipation and growth of empire; history of finance capital and its discourses of debt; capitalism and history of anti-Blackness; racism, neoliberalism, and governmentality; and emergence and content of Black radical tradition and its critiques of racial capitalism. S/U or letter grading.

M200C. Black Families and Relationships. (4) (Same as Sociology M200C.) Seminar, three hours. Evaluates social, cultural, and historical forces that affect socialization, stability, and interaction in black intimate relationships, beginning with theoretical framework from analysis of economic context and other expectations for partners in cohabiting and other types of unions. Examination of family life for both middle-class and low-income populations. Explanation of notions of black sexuality, including images of hyper-masculinity and femininity within black body and critical interrogation of notions of blackness and authenticity in racial identification. Contribution to greater understanding of black intimate relationships in different contexts, including lesbian and gay identities, Caribbean and other ethnic identities, and intraracial intimacies. S/U or letter grading.

200D. African American Women's History. (4) Seminar, four hours. Historical examination of black women's experiences in U.S. from antebellum era to present. Exploration of key themes, including gender formation, sexuality, labor and class, collective action, and role of law. How have intersecting forms of oppression impacted black women's historical lives? How is difference constructed through interrelated and overlapping ideologies and institutions? How do historians uncover black women's historical lives and what are the challenges to such discoveries? Examination of black women's individual and collective struggles for freedom and equality, both theoretical and practical, as well as black women's participation in and challenge to social movements, including suffrage, women's liberation, civil rights, and black power. Letter grading.

M200E. Studies in Afro-American Literature. (4) (Same as English M200E.) Lecture, four hours. Intensive research and study of major themes, issues, and writers in Afro-American literature. Discussions and research on aesthetic, cultural, and social backgrounds of Afro-American writing. May be repeated for credit. S/U or letter grading.

M200G. Race, Class, and Gender: Constructing Black Womanhood and Black Manhood in America. (4) (Same as Sociology M200G.) Seminar, four hours. Race, class, gender, and sexual identity are axes of stratification, identity, and experience. They are not merely identities but structural locations that are often taken for granted and raced against, challenged, or contested. Many times one or more of these go unrecognized. Exploration of multiple and intersecting ways these concepts shape society, individual life chances, and daily lives of African Americans. Examination of race, class, and gender inequalities as individual aspects of social life. How race, class, gender, and sexual identity shape societies and individual experiences, and how race, class, and gender inequalities impact each other. How these identities shape and are shaped by social institutions, including cultural institutions, economy, and family, within context of experiences of black women and black men in contemporary U.S. Letter grading.

200H. Social Politics of Recent African American Music and Popular Culture. (4) Seminar, four hours. Predominant trend in research in African American music highlights its social and political movements, contextual socioeconomic realities, and cultural politics of identity. Civil rights, black power, feminism, sexual revolution, and anti-war were movements that shaped and were shaped by music of the period. Music coverage includes reggae and dancehall, jazz, hip-hop, and rap. Seminar has also engaged questions pertaining to intra-African American politics of community: grappling with issues such as materialism, globalization,udu, funerals, and mourning. S/U or letter grading.

M211. Seminar: African American Music. (4) (Formerly numbered Ethnomusicology M211.) Seminar, four hours. Currently scheduled with course CM110D. S/U or letter grading.

M212. Critical Theory of African Diaspora. (4) (Same as Anthropology M245.) Seminar, four hours. Introduces to variety of ideas that underlie articulation of construction of African diaspora. Structured through understanding of African diaspora as historical formation, with focus on African diaspora as distinct intellectual project. Experiments have opened up conceptualized and theorized diasporic condition of Black people. Consideration of who belongs to African diaspora and how this community is imagined. S/U or letter grading.

M213. African American Studies Research Prep. I: Introduction to Research Methods. (4) Seminar, three hours. Requisites: courses 210A, 210B. Designed for first-year African American Studies graduate students. Students are assisted in conceptualizing, designing, and writing research proposals. Introduces to major methodologies by which students help students prepare for graduate study, academics, and/or research according to their respective areas of interest. Skilled in Institutional Research Boards (IRB) or research involving human subjects; securing research grants; funding and understanding their criteria; and writing statements of purpose and personal background. S/U or letter grading.

M214. African American Studies Research Prep. II: Writing Successful and Highly Publishable Research. (4) Seminar, four hours. Introduces to different forms of epistemological debates around them—in their own discipline of African American studies. Interrogation of some of more significant debates in field as students consider how to engage and utilize these ideas—and epistemological debates around them—in their own work. Students think critically about different forms of intellectual production and scholastic inquiry in field that is now quite broad and interdisciplinary. Letter grading.


M220. Critical Theory of African Diaspora. (4) (Same as Anthropology M245.) Seminar, four hours. Introduces to variety of ideas that underlie articulation of construction of African diaspora. Structured through understanding of African diaspora as historical formation, with focus on African diaspora as distinct intellectual project. Experiments have opened up conceptualized and theorized diasporic condition of Black people. Consideration of who belongs to African diaspora and how this community is imagined. S/U or letter grading.


Critical commentary about major features of American life and society. Concurrently scheduled with course CM135A. S/U or letter grading.

CM235B. African American Art, 1900 to 1963. (4) (Same as Art History CM235B.) Lecture, three hours. Detailed inquiry into work of African American artists from Columbian Exposition to 1963 March on Washington within context of social, political, and cultural engagement as well as codification of modern black life in U.S. Concurrently scheduled with course CM135B. S/U or letter grading.

M240. Assessment and Treatment of African American Families. (3) (Same as Psychiatry M240.) Seminar, two hours. Designed for graduate students. Course aids mental health professionals and trainees in evaluation and treatment of African American families in terms of their cultural milieu, historical background, and economic status. Didactic presentations by instructors and invited guests form basis for supervised evaluation and case management with African American children and families. Letter grading.


M256. Topics in African American Art. (4) (Same as Art History M236.) Seminar, three hours. Requisite: course CM235A or CM235B. Topics in African American art from 18th century to present. May be repeated for credit with consent of graduate adviser, S/U or letter grading.

C266. Future of Work in Decarcerated California. (4) Seminar, three hours. Limited to students in Community Scholars program. Exploration of scope of employment and nature of jobs that are attached to current system of mass incarceration in California, with focus on Los Angeles county. Study of history and evolution of carceral system and its relationship to oppression of black people, poor, and other stigmatized groups. Exploration of history of employment discrimination against Black workers and how successful demand for unionized government jobs (public sector work) evolved as anti-discrimination remedy. Examination of work, especially by people of color, in existing carceral regimes, and its impact on individual worker wellness and community well-being. Examination of tension between racial justice agendas to decarcerate California and those to prevent downward mobility of workers of color recruited by state to carry out failed policies of war on drugs. Concurrently scheduled with course CM235B. S/U or letter grading.

C266B. Future of Work in Decarcerated California II: Applied Research and Policy Analysis for Implementation of Justice Transformation. (4) Seminar, three hours. Limited to students in Community Scholars program. Requisite: course C266. Second course in two-quarter participatory action research program that partners students with community-based change agents. Study involves project-based learning in groups made up of undergraduate and graduate students and community members. Students contribute to development of collective policy platform that centers recommendations of formerly employed and formerly incarcerated people in broader community vision for transitioning to decarcerated workforce. Concurrently scheduled with course CM168B. S/U or letter grading.

270A. Survey of Afro-American Research. (4) Seminar, three hours. Overview of research methodologies in humanities and social sciences, with firsthand reports from faculty in various fields. Introduction to research in and related to Afro-American studies and application of such research. Letter grading.


375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guid-
Undergraduate Major

American Indian Studies BA

The American Indian Studies BA program is designed to offer a coherent and comprehensive curriculum in American Indian cultures, societies, and contemporary issues in addition to valuable background in more traditional disciplines such as anthropology, art history, economics, education, history, law, linguistics, literature, sociology, and world arts and cultures. Students acquire a critical knowledge of the concepts, theories, and methods that have produced knowledge about American Indians in the traditional disciplines. Students are encouraged to develop a concentration—or special expertise—in these fields to accompany the major.

The curriculum encompasses the cultural, historical, political, and social experiences of Native Americans in the Americas. Through courses on Native American literature, languages, theater, and contemporary societies and through more culturally specific courses on California Indians, cultures of the Pueblo southwest, and so on, the major offers an in-depth and broad knowledge on the experience of Native Americans not only in the U.S. and Canada but in Mexico and elsewhere in Latin America as well.

Given the increasingly multicultural society of the U.S. and the economic revitalization of many Native American communities, a knowledge of American Indian studies greatly enhances the professional and scholarly contributions attainable for those seeking postgraduate degrees in various related disciplines and fields.

Capstone Major

The American Indian Studies major is a designated capstone major. Seniors complete a research/service experience and participate in a tutorial where faculty members help them relate their course-derived academic experience to their original research/service efforts involving Native American communities. Through their capstone work, students demonstrate their skills at analyzing and synthesizing knowledge, show their capacity to work collaboratively with peers, and display their capacity to relate their academic research and discourse to Native American communities' needs and concerns. Students present their work at the academic year-end Research Symposium sponsored by the American Indian Studies Interdepartmental Program.

Learning Outcomes

The American Indian Studies major has the following learning outcomes:

- Demonstrated analysis and knowledge-synthesis skills gained through completion of written capstone thesis
- Identification of a key idea or theme of interest drawn from coursework
- Effective public presentation of selected theme in final paper and/or project

- Relation of academic research and discourse to Native American communities' needs and concerns
- Communication of statistical and quantitative information to appropriate communities
- Display capacity to work collectively with peers to effectively analyze and synthesize knowledge

Entry to the Major

Transfer Students

Transfer applicants to the American Indian Studies major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one introduction to American Indian studies course and two courses from culture and society, introduction to gender studies, introduction to American politics, or introduction to statistical methods.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major

Required: American Indian Studies M10 and two courses from Anthropology 3, Gender Studies 10, Political Science 40, Statistics 12.

The Major

Requirements are distributed according to certain categories to create a breadth of knowledge. Students are required to take a research methods course to become familiar with scholarly techniques of knowledge production and to critically regard academic research, as well as a course in either ethnic/race/gender relations or comparative indigenous studies. Additional courses are selected in the social sciences and humanities according to a distributional formula that encourages further specialization within either of these two broad areas while simultaneously adding additional breadth. Finally, American Indian Studies C122XP prioritizes the experiential dimension of involvement in Native American communities (either urban, reservation, or rancheria) through work that supplies service experience and/or supervised internship opportunities.

The 12 courses must fit one of the following regional emphasis patterns: (1) Native North America—eight courses, including those mentioned below and additional electives on Native North American topics or (2) indigenous peoples of the Americas—eight courses, including at least four dealing with indigenous people in Central America and/or South America.

Students must complete 12 upper-division courses (48 units) as follows, with no more than 32 units from American Indian studies courses:

1. Ten core courses (40 units), including (a) American Indian Studies M161, (b) two language courses from Anthropology M150, 155, Linguistics 114, (c) two history or law courses from American Indian Studies 140, 158, C170, History 149A, 149B, 157B, (d) one social sciences course from American Indian Studies C120, C121, C130, C175, C178, Anthropol-
ogy 160A, or 162. (e) two expressive culture courses from American Indian Studies 180, Art History 137, CM139A, C139B, English 106, Ethnomusicology 106A, 106B, Theater 103F, 107, (f) one methodology course from Anthropology 138P, Art History 100, Community Health Sciences 181, Comparative Literature 100, Linguistics 160, Political Science 170A, Sociology 106A, 113, or World Arts and Cultures 195, and (g) either one ethnic/race/ gender relations course (African American Studies M164, Anthropology M145Q, 145S, Asian American Studies 130A, M130B, M130C, 131A, 132A, 133, 134, Chicana/o and Central American Studies CM182, Film and Television 128, Gender Studies 130, 168, Sociology 154, 156, or M162) or one comparative indigenous studies course (Anthropology 143, Geography M126, History 135A, or Sociology 157).

2. American Indian Studies C122XP (experiential service learning or supervised internship)

3. American Indian Studies 199C (capstone course)

**Honors Program**

Students must take American Indian Studies 198A-198B-198C with a professor who agrees to mentor and guide them through the stages of senior essay design and development during their senior year. Completion of a senior thesis is required.

**Policies**

**Preparation for the Major**

Each course must be completed with a grade of C or better.

**The Major**

Each course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better. No more than two independent studies courses (199s) may be applied toward the degree.

**Honors Program**

All junior and senior American Indian Studies majors who have a cumulative grade-point average of 3.0 or better and at least a cumulative GPA of 3.5 in coursework in the major are eligible to apply. Consult the student affairs officer for more information.

To qualify for graduation with honors, students must (1) complete all requirements for the major, (2) have a cumulative grade-point average of 3.5 or better in the major course requirements and an overall GPA of 3.0 or better, and (3) complete American Indian Studies 198A-198B-198C, taken with a professor who agrees to mentor and guide them through the stages of senior essay design and development during their senior year. Completion of a senior thesis is required.

**Undergraduate Minor**

**American Indian Studies Minor**

The American Indian Studies minor is designed for students who wish to augment their major program of study in the College of Letters and Science with a group of related courses from various disciplines germane to American Indian studies. The minor exposes students to Indian-related research and literature in a number of different disciplines such as American Indian studies, anthropology, economics, history, political science, sociology, and theater.

**Admission**

To enter the minor, students must be in good academic standing, have completed 45 units, and file a petition at the American Indian Studies Center, 3220 Campbell Hall. All degree requirements, including the specific requirements for this minor, must be fulfilled within the unit maximum set forth by the College of Letters and Science.

**Required Lower-Division Course (5 units):**

American Indian Studies M10 with a grade of C or better.

**Required Upper-Division Courses (28 units):**

Seven courses selected from the following: (1) one American Indian languages and communication systems course (Anthropology 155 or Linguistics 114); (2) three history and social sciences courses from American Indian Studies C120, C121, C122XP, C130, 140, 158, C170, C175, C178, Anthropology 113Q, 113R, 114P, 114R, Gender Studies 130, History 149A, 149B, 157B, Sociology M161; (3) three humanistic perspectives on language and expressive culture courses from American Indian Studies 180, Art History 137, CM139A, English 106, 180, Ethnomusicology 106A, 106B, Theater 103F.

**Policies**

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor, and at least 16 units applied toward the minor must be taken in residence at UCLA. Transfer credit for any of the above is subject to program approval; consult with the interdepartmental adviser before enrolling in any courses for the minor.

Each minor course must be taken for a letter grade, and students must have a minimum grade of C (2.0) in each and an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

**Graduate Major**

**American Indian Studies MA**

Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

**Concurrent Degree Program**

Concurrent degree programs allow students to reduce the number of courses required for two degrees, since some courses may apply to both degrees.

- American Indian Studies MA/Juris Doctor

**American Indian Studies Lower-Division Courses**

**M10. Introduction to American Indian Studies.** (5) (Same as World Arts and Cultures M23.) Lecture, three hours; discussion, one hour; activity, one hour. Survey of selected Native North American cultures from pre-Western contact to contemporary period, with particular emphasis on early cultural diversity and diverse patterns of political, linguistic, social, legal, and cultural change in postcontact period. P/NP or letter grading.

**M18. Leadership and Student-Initiated Retention.** (Same as African American Studies M18, Asian American Studies M18, and Chicana/o and Central American Studies M18.) Seminar, two hours. Limited to freshmen/sophomores/first-year transfer students. Not open for credit to students with credit for course M118. Exploration of issues in retention at UCLA through lens of student-initiated and student-run programs, efforts, activities, and services. Focus on populations with historically low graduation rates targeted by Campus Retention Committee. May not be applied toward departmental major or minor elective requirements. May be repeated once for credit. Letter grading.

**19. Fiat Lux Freshman Seminars.** (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

**89HC. Honors Contracts.** (1) Tutorial, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

**89HH. Honors Contracts.** (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

**99. Student Research Program.** (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.
Upper-Division Courses

M118. Student-Initiated Retention and Outreach Issues in Higher Education. (4) (Same as African American Studies M118, Asian American Studies M118, and Chicana/o and Chicano Studies M118.) Lecture, four hours. Exploration of issues in outreach and retention of students in higher education, especially through student-initiated programs, efforts, activities, and services, with focus on UCLA as case. May be repeated twice for credit. Letter grading.

C120. Working in Tribal Communities: Introduction. (4) Lecture, four hours. Through readings, discussion, and Native guest lecturers, students learn to participate within and with communities engaged in political, social, and cultural processes of change and preservation. Development of proposal for Native nation-building project. Concurrently scheduled with course C220. Letter grading.

C121. Working in Tribal Communities: Preparing for Fieldwork. (4) Lecture, four hours. Through readings, discussion, Native guest lecturers, and project participation, introduction to rules of conduct and skills necessary to work or carry out community service projects for Native American communities and organizations. Concurrently scheduled with course C221. Letter grading.

C122XP. Working in Tribal Communities: Community-Engaged Learning. (4) (Formerly numbered C122SL) Seminar, one hour; fieldwork, four hours. Enforced requisite: course C121. Recommended: course C120. Participation in community service learning projects within Native American communities and organizations where students are mentored and supported by faculty members, other students, and project directors toward project development and service learning projects and contributing to project activities. May be repeated with consent of instructor. Concurrently scheduled with course C222XP. Letter grading.

M123. Afro-Indigenous History: from Enslavement and Slavery to Black Lives Matter and Indigenous Sovereignty. (4) (Same as African American Studies M121.) Lecture, four hours; discussion, one hour. Examination of how race was developed through episodes in history. Using articles, books, documentary and technical papers, and guest lectures, examination of history of African descent and African American communities engaged in political, social, and cultural processes of change and preservation. Development of proposal for Native nation-building project. Concurrently scheduled with course C245. Letter grading.

M156. Language Endangerment and Linguistic Revitalization. (4) (Same as Anthropology M156.) Lecture, three hours; activity, one hour. Requisites: course M10 or Sociology 1. Comparative and historical study of linguistic and cultural change in indigenous North American societies. Several theories of social change, applied to selected case studies. Letter grading.

M162. Language Endangerment and Linguistic Revitalization. (4) (Same as Anthropology M156.) Lecture, three hours; activity, one hour. Requisites: course M10, Anthropology 4. Examination of causes and consequences of current worldwide loss of linguistic diversity and revitalization of languages that are in danger of becoming extinct. May be repeated for credit with topic and/or instructor change. Letter grading.

M166. American Indian Literature. (4) (Same as Anthropology M166.) Lecture, four hours; discussion, one hour. Identification of traditional health beliefs, health practices, and healthcare systems of American Indian tribes to understand role of U.S. government in healthcare services for Indian people. Description of health problems that have affected American Indian people and definition of contemporary health issues and measures taken to improve health status of American Indian people. Concurrently scheduled with course C166. Letter grading.

C170. California History. (4) Lecture, four hours. Introduction to overview of California history, specific tribal communities histories, and or contemporary California Native stories. May be repeated for credit with topic and consent of instructor. Concurrently scheduled with course C270. Letter grading.

C175. Cultures of Native Southern California. (4) Lecture, three hours. Introduction to Southern California indigenous societies through readings, discussion, guest lecturers, and direct community participation. May be repeated for credit with topic and/or instructor change and consent of interdepartmental chair. Concurrently scheduled with course C275. Letter grading.

C178. California Experiences in Native Cultural Resource Management. (4) Seminar, three hours. Exploration of creation and implementation of laws that affect cultural resource management in California, such as California Environmental Quality Act (CEQA), Native American Graves Protection and Repatriation Act (NAGPRA), AB 978 (California NAGPRA), American Indian Religious Freedom Act, National Environmental Policy Act (NEPA), and National Historic Preservation Act (NHPA), from applied standpoint. To understand goals and challenges of these laws, examination of series of cases from California sites. Concurrently scheduled with course C278. Letter grading.

190. Introduction to and Practicum in Native American Languages. (4) Lecture, three hours; laboratory, one hour. Development of ability to converse, read, and write at elementary level in Native American language. Instruction in immersion, language and culture classes, master-apprentice, interactive multimedia, mass media approaches, and strategies that have been attempted, including many affected communities have engaged in various tribal languages. Since loss of such languages means cultural processes, seen as distinct from ethnicity, race, class, and language, which indigenous communities that have maintained self-government, territory, and culture. Investigation and search for analogy and policy patterns that give greater understanding and knowledge about current conditions and social and cultural processes of indigenous nations. Concurrently scheduled with course C245. Letter grading.

158. Nation Building. (4) Lecture, three hours; fieldwork, three hours. Lecture, three hours; laboratory, three hours. Limitations to junior/senior American Indian Studies majors. Examination of historical interplay of federal policies with tribal cultures that has shaped political development of American Indian nation-building project. Students enrolled in American Indian nation-building project. May be repeated for credit with topic and/or instructor change. Letter grading.

186. Indigenous Film. (5) Lecture, three hours; laboratory, two hours. May be repeated for credit with topic and/or instructor change. Letter grading.

187. Special Topics in American Indian Studies. (4) Lecture, four hours; discussion, one hour. Introduction to study of indigenous films and representations, with focus on selected ethnographic, documentary, animated, and feature films ranging from 1920 to present. P/NP or letter grading.

187A. Special Topics in American Indian and Gender Studies. (4) Lecture, three hours; discussion, one hour. Introduction to study of indigenous films and representations, with focus on selected ethnographic, documentary, animated, and feature films ranging from 1920 to present. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. P/NP or letter grading.

195. Community Internships in American Indian Studies. (4) Tutorial, two hours; fieldwork, eight hours. Requisite: course M10. Limited to juniors/seniors. Internship in supervised setting in community agency. Associate in research on required and provide periodic reports on their experience. Designed to integrate theory and practice through experiential learning to gain firsthand knowledge of diversity, community, and the variety of needs of American Indian communities. May be repeated for maximum of 8 units. Individual contract with supervising faculty member required. P/NP grading.
M195CE. Comparative Approaches to Community and Corporate Internships. (4) (Same as African American Studies M195CE, Asian American Studies M195CE, Chicana/o and Central American Studies M195CE, and Gender Studies M195CE) Tutorial, one hour; fieldwork, eight to 10 hours. Limited to juniors/seniors. Internship in corporate, governmental, or nonprofit setting coordinated through Center for Community Learning. Study of race, gender, and indigeneity in relation to contemporary workplace dynamics. Students complete weekly written assignments, attend biweekly meetings with supervising faculty mentor, and write final research paper. Faculty sponsor and graduate student coordinator construct series of writing assignments that examine issues related to internship site. Individual contract with supervising faculty member required. P/NP or letter grading.

197. Individual Studies in American Indian Studies. (2 to 4) Tutorial, three hours. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned readings and tangible evidence of mastery of subject matter required. May be repeated for maximum of 16 units. Individual contract required. P/NP or letter grading.

198A-198B-198C. Honors Research in American Indian Studies. (4–4–4) Tutorial, one hour; activity, three hours. Course 198A is enforced requisite to 198B, which is enforced requisite to 198C. Limited to senior honors program students. Development and completion of honors thesis or comprehensive research project under direct supervision of faculty member. Each course may be repeated for credit. Individual contract required. Letter grading.

199. Directed Research or Senior Project in American Indian Studies. (2 to 8) Tutorial, one hour. Limited to juniors/senior American Indian Studies majors. Fieldwork or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

199C. Individual Studies: Capstone Synthesis. (4) Tutorial, three hours. Preparation: successful completion of eight upper-division major courses. Limited to senior American Indian Studies majors. Faculty members help students relate their course-derived academic experience to their original research/service efforts involving Native American communities. Completion of research paper and presentation of student work at year-end symposium required. Credit may be taken in conjunction with American Indian Studies C122SL or an alternative upper-division course approved by program chair and academic coordinator. Individual contract required. Letter grading.

Graduate Courses

M200B. Cultural World Views of Native America. (4) (Same as English M266) Seminar, three hours. Exploration of written literary texts from oral cultures and other expressive cultural forms—dance, art, song, religious and medicinal ritual—in selected Native American cultures of history. Stereotypical approach to content and methodologies related to Native past that is interdisciplinary and multicultural in its scope. Letter grading.

M207. Economic Principles and Economic Development in Indigenous Nations. (4) (Formerly numbered M200G.) (Same as History M200W) Lecture, 90 minutes; seminar, 90 minutes. Introduction to culture-histories of North American Indians and review of Indian concepts of history. Historical overview of defining moments in American Indian political and social development as basis for gaining deeper understanding of American Indian intellectual traditions over time. Course could assist them with their legal development projects. Once students are to project, they meet with relevant tribal officials and community groups with travel funds supplied. Students learn about tribal governments and legal systems, including federal constraints on activities of tribal legal institutions, and culture of tribe they are representing to be able to craft legislation and other documents that meet tribal intentions and needs. Concurrently scheduled with Law 528. In Progress (CSA) and S/U or letter (CSA) grading.


C238A-238B. Tribal Legal Development Clinic. (238A: 1) Lecture, three hours; course 238A is enforced requisite to 238B. Students provide nonlitigation legal assistance to Indian nations. Projects include development and modification of tribal legal codes and constitutional provisions, creation of tribal dispute resolution processes, and drafting of intergovernmental agreements. Students learn about tribal governments and legal systems, including federal constraints on activities of tribal legal institutions, and culture of tribe they are representing to be able to craft legislation and other documents that meet tribal intentions and needs. Concurrently scheduled with course C130. S/U or letter (CSA) grading.

C245. Contemporary Indigenous Nations. (4) Seminar, three hours. Introduction to topics on contemporary indigenous nations, including social movements, stereotypes and island identities and other issues and social cultural processes, seen as distinct from ethnicity, race, class, and nation, with focus on indigenous communities that have maintained self-government, territory, and culture. Investigation and search for analytic and policy patterns that give greater understanding and knowledge about current conditions and cultural and social processes of indigenous nations. Concurrently scheduled with course C145. S/U or letter (CSA) grading.

261. Comparative Indigenous Societies. (4) Lecture, two hours; discussion, two hours. Designed for graduate students. Research of selected Native American societies, as these traditional and tribal contexts have been translated into contemporary literary texts (fiction, poetry, essay, and drama). Survey, from secondary sources, of interdisciplinary methodologies and approaches taken from literary analysis, structural anthropology, folklore, linguistics, and ethnomusicology. May be repeated for credit with instructor and/or topic change. Letter grading.

M200C. Contemporary Issues of American Indians. (4) (Same as Anthropology M234P and Sociology M275S) Seminar, three hours. Introduction to most important issues facing American Indians as individuals, communities, tribes, and organizations. Study of identity in contemporary world, building on historical background presented in course M200A and cultural and expressive experience of American Indians presented in course M200B. Letter grading.

201. Introduction to Interdisciplinary Methods in American Indian and Indigenous Studies. (4) Lecture, three hours. Faculty present approaches to interdisciplinary studies and discuss their own research. Participants include wide range of faculty whose research and teaching balance disciplinary and theoretical approaches with interdisciplinary approaches to American Indian studies and indigenous studies. S/U or letter grading.

202. Key Theories and Concepts in American Indian Studies. (4) Lecture, three hours. Addresses key intellectual movements and concepts (such as sovereignty, self-determination, colonialism, decolonization, etc.) in the development of Native American indigenous studies as discipline. Research and collaboration with indigenous communities is highlighted as core methodological and ethical approach to knowledge acquisition, fieldwork, and their graduate studies. Historical overview of defining moments in American Indian political and social development as basis for gaining deeper understanding of American Indian intellectual traditions over time. Course could assist them with their legal development projects. Once students are to project, they meet with relevant tribal officials and community groups with travel funds supplied. Students learn about tribal governments and legal systems, including federal constraints on activities of tribal legal institutions, and culture of tribe they are representing to be able to craft legislation and other documents that meet tribal intentions and needs. Concurrently scheduled with Law 528. In Progress (CSA) and S/U or letter (CSA) grading.
tribal, federal, and state jurisdiction in Indian country according to default rules as well as special statutory regimes. May be concurrently scheduled with Law 267. S/U or letter grading.

M265A-265B. Federal Indian Law I. (1 to 8 each) (Same as Law M267.) Lecture, three hours. Course M265A is enforced requisite to 265B. Overview of federal Indian law through study of cases and historical and constitutional context. Basic conflicts among sovereign governments that dominate this area of law, especially conflicts over criminal, civil adjudicative, and regulatory jurisdiction. Special attention to status and sovereignty of Native nations recognized under U.S. law, federal trust responsibility, and equal protection issues posed by federal and state legislation singling out Indian nations and tribal members. Federal regulatory tribal gaming and child welfare included. Students gain critical understanding of basic tenets of Indian law, bases of tribal sovereignty, structure of federal-tribal relationship and its history, and sense of future directions courts, tribes, and Congress may take in addressing current legal issues in Indian country. In Progress (M265A) and S/U or letter grading (265B) grading.

M267. Federal Indian Law II. (1 to 8) (Same as Law M382.) Requisites: courses 238A and 238B, or M265A and 265B. Examination in-depth of principles and doctrines of federal Indian law as applied to property rights land, cultural resources, hunting and fishing rights, and water rights, and economic development. Special jurisdictional regimes established by federal statutes, such as Indian Child Welfare Act and Indian Gaming Regulatory Act, addressed. S/U or letter grading.

M267A-267B. Federal Indian Law II. (1 to 8 each) (Same as Law M382.) Lecture, three hours. Requisites: courses 238A and 238B, or M265A and 265B. Course M267A is enforced requisite to 267B. Examination in-depth of principles and doctrines of federal Indian law as applied to property rights land, cultural resources, hunting and fishing rights, water rights, and economic development. Special jurisdictional regimes established by federal statutes, such as Indian Child Welfare Act and Indian Gaming Regulatory Act, addressed. In Progress (M267A) and S/U or letter (267B) grading.

C258. Healthcare for American Indians. (4) Lecture, two hours; discussion, one hour. Identification of traditional health beliefs, health practices, and healthcare systems of American Indian tribes to understand role of U.S. healthcare services for Indian people. Survey of Federal Indian Health programs and development of Indian Healthcare System and Tribal/Urban Indian Health programs to understand health problems of American Indian people, and definition of contemporary health issues and measures taken to raise health status of American Indian people. Concurrently scheduled with course CM168. Letter grading.

C270. California Indian History. (4) Lecture, four hours. Introduction to overview of California Indian history, specific tribal community histories, and/or contemporary California Indian history through readings, discussion, and Native guest lecturers. May be repeated for credit with topic change and consent of interdepartmental chair. Concurrently scheduled with course C170. S/U or letter grading.

M272. Theories of Property Law. (3 or 4) (Same as Law M514.) Seminar, three hours. Exploration of identity, ownership, appropriation, and reappropriation of both tangible and intangible cultural property—those items that are of great significance to cultural heritage and cultural survival of people. Consideration of importance of preservation of cultural property as means of maintaining group identity, self-determination, and examination of both national and domestic law governing these issues, addressing such questions as How should cultural property be defined? Can cultural property by protected under existing intellectual and cultural property regimes? How can we balance protection of cultural property against need or desire for its use in creative expression or scientific advancement? Examination of cultural property of groups in general, with emphasis on cultural property of indigenous peoples, including folklore, traditional knowledge, burial grounds, sacred sites, and ancient ceremonies and traditions. S/U or letter grading.

274. Good Native Governance. (4 or 6) Seminar, three hours. Examination of legal issues integral to governance that Native American nations face in 21st century, including those that impact and shape political sovereignty, economic development, constitutional rights and responsibilities, cultural property protection, sacred sites, religious freedom, and safety and criminal law enforcement, among others. Emphasis on breadth of issues that lawyers working with and for Native nations must confront. Integration and highlighting of legal issues unique to Native nations within California. Materials from traditional law review articles, books, and case studies derived from field research to engage students in multidimensional settings that confront Native societies. May be concurrently scheduled with Law 637. S/U or letter grading.

C275. Cultures of Native Southern California. (4) Lecture, three hours. Introduction to Southern California indigenous societies through readings, discussion, guest lecturers, and direct community participation. May be repeated for credit with topic and/or instructor change and consent of interdepartmental chair. Concurrently scheduled with course C175. S/U or letter grading.

C278. California Experiences in Native Cultural Resource Management. (4) Seminar, three hours. Exploration of creation and implementation of laws that affect cultural resource management in California, such as California Environmental Quality Act (CEQA), Native American Graves Protection and Repatriation Act (NAGPRA), AB 978 (California NAGPRA), American Indian Religious Freedom Act, National Environmental Policy Act (NEPA), and National Historic Preservation Act (NHPA), from applied standpoint. To understanding and challenges of these laws, examination of series of cases from California sites. Concurrently scheduled with course C178. S/U or letter grading.

280A. Indigenous Peoples in International Law. (2) Lecture, four hours. Students become familiar with Indigenous peoples’ involvement in human rights movement and corresponding developments (drafting of instruments, claims, reports, hearings, and cases) in United Nations, Organization of American States, and other institutions. Particular attention is paid to U.N. General Assembly’s 2007 adoption of Declaration on the Rights of Indigenous Peoples, as well as to regional developments around world. Additional focus on Human Rights Commission on the Rights of Indigenous Peoples in making recommendations to improve situation of Indigenous peoples in domestic settings, including U.S. Study of contemporary instances in which Indigenous peoples have used international human rights system to address issues in self-governance and political participation. Concurrently scheduled with Law 444. In Progress grading (credit to be given only on completion of course 280B).

280B. Indigenous Peoples in International Law. (1) Lecture, four hours. Requisite: course 280A. Students become familiar with Indigenous peoples’ involvement in human rights movement and corresponding developments (drafting of instruments, claims, reports, hearings, and cases) in United Nations, Organization of American States, and other institutions. Particular attention is paid to U.N. General Assembly’s 2007 adoption of Declaration on the Rights of Indigenous Peoples, as well as to regional developments around world. Additional focus on challenges of implementing human rights standards to improve situation of Indigenous peoples in domestic settings, including U.S. Study of contemporary instances in which Indigenous peoples have used international human rights system to address issues in self-governance and political participation. Concurrently scheduled with Law 444. Letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.


ANESTHESIOLOGY AND PERIOPERATIVE MEDICINE

David Geffen School of Medicine
3304 Reagan UCLA Medical Center
Box 957403
Los Angeles, CA 90095-7403

Anesthesiology and Perioperative Medicine
310-267-8655

Maxime Cannesson, MD, PhD, Chair
Joe C. Hong, MD, Executive Vice Chair
Judi A. Turner, MD, PhD, Vice Chair, Education
Thomas M. Vondriska, PhD, Vice Chair, Research
John Shin, MD, Director, Medical Student Education

Overview

The medical student program in the Department of Anesthesiology and Perioperative Medicine focuses on the delivery of perioperative care to surgical patients. During their training in the department, students develop clinical skills of medical management of surgical patients, techniques of monitoring and invasive line placement, and airway management skills. They are assigned to work with an attending anesthesiologist and/or anesthesia resident on a daily basis in one of the operating room locations and participate in the preoperative evaluation and preparation of their patients and development of an anesthetic plan. Students then observe how to prepare for and execute their anesthetic plan. They have opportunity to perform procedures as their abilities and the situation permit. In addition, the department’s Human Patient Simulator provides students with a simulated operating room setting where a variety of clinical situations are initiated so they can practice their clinical skills. Students are also expected to attend clinically oriented lectures on a wide range of anesthesia topics, including physiology, pharmacology, and critical care.

For more details on the Department of Anesthesiology and Perioperative Medicine and a list of the courses offered, see the department website.

Anesthesiology and Perioperative Medicine faculty information is available from the department.
Anesthesiology

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar; one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Course

199. Directed Research in Anesthesiology. (2 to 8) Tutorial (supervised individual research or investigation under guidance of faculty mentor. Culminating paper required. May be repeated for credit. Individual contract required; credit. P/NP or letter grading.

ANTHROPOLOGY

College of Letters and Science

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Box 951553
Los Angeles, CA 90095-1553

Anthropology

310-825-2055
Department e-mail

C. Jason Throop, PhD, Chair
Abigail W. Bigham, PhD, Undergraduate Vice Chair
Brooke A. Scelza, PhD, Graduate Vice Chair

Faculty Roster

Professors

Stephen B. Acabado, PhD
H. Samy Alim, PhD
Andrew Apter, PhD
H. Clark Barrett, PhD
Aomar Boum, PhD (Maurice Amado Professor of Sephardic Studies)
Philippe I. Bourgois, PhD, (Richard D. and Ruth P. Walter Professor of Psychiatry)
P. Jeffrey Brantingham, PhD
Jessica R. Cattelino, PhD
Jason P. De León, PhD
Daniel M.T. Fessler, PhD (Bedari Kindness Institute Endowed Professor)
Alan Page Fiske, PhD
Linda C. Garro, PhD
Akhil Gupta, PhD
Laurie K. Hart, PhD
Douglas W. Hollan, PhD
Christopher M. Kelly, PhD
Paul V. Kroskrity, PhD
Richard G. Lesure, PhD (Marilyn Beaudry-Corbett Endowed Professor of Mesoamerican Archaeology)
Nancy E. Levine, PhD
Purnima Manekar, PhD
Norma C. Mendoza-Denton, PhD
Kyeyoung R. Park, PhD (Korea Times-Hankook Ilbo Endowed Professor of Korean American Studies and Law)
Susan E. Perry, PhD
Jemima Pierre, PhD
Brooke A. Scelza, PhD
Gregson T. Schachner, PhD
David Delgado Shorter, PhD
Susan E. Sloyomovics, PhD
Monica L. Smith, PhD (Navin and Pratima Doshi Professor of Indian Studies)
Shannon E. Speed, PhD
James W. Stigler, PhD
C. Jason Throop, PhD
Yunxiang Yan, PhD

Professors Emeriti

Nicholas G. Blurton Jones, PhD
Robert Boyd, PhD
Karen B. Brodkin, PhD
Carole H. Browner, PhD
Christopher B. Donnan, PhD
Alessandro Duranti, PhD
Marjorie Harness Goodwin, PhD
Sondra Hale, PhD
Allen W. Johnson, PhD
Gail E. Kennedy, PhD
Joseph H. Manso, PhD
Claudia I. Mitchell-Kernan, PhD
Philip L. Newman, PhD
Elinor Ochs, PhD
Sherry B. Ortner, PhD
Merrick Posansky, PhD
Dwight W. Read, PhD
Joan B. Silk, PhD
Charles S. Stanish, PhD
Mariko Tamanoi, PhD
Russell Thornton, PhD
Thomas S. Weisner, PhD

Associate Professors

Salih Can Aşiköz, PhD
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Abigail W. Bigham, PhD
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Erica A. Cartmill, PhD
Erin K. Debenport, PhD
Molly M. Fox, PhD
Min Li, PhD
Jessica W. Lynch-Alfaro, PhD
Brian M. Wood, PhD

Assistant Professors

Justin P. Dunnavant, PhD
Ippolitos A. Kalofonos, MD, PhD, MPH, in Residence
Bharat J. Venkat, PhD

Adjunct Professors

M. Kamari Clarke, PhD
Robert B. Lemelson, PhD

Adjunct Associate Professors

Tamar Kremer-Sadlik, PhD
Tritia Toyota, PhD
Thomas A. Wake, PhD

Overview

Anthropology, the broadest of the social sciences, is the study of humankind. One of the strengths of anthropology as a discipline is its holistic or integrative approach; it links the life sciences and the humanities and has strong ties with disciplines ranging from biology and psychology to linguistics, political science, and the fine arts. Anthropological study is appropriate for people with a wide variety of interests: human cultures and civilizations both present and past, human and animal behavior, particular regions of the world such as Africa, Asia, Latin America, Oceania, etc.

Studies in anthropology are particularly valuable for students planning careers in which an understanding of human behavior and cultural diversity is desirable, such as business, education, law, medicine, nursing, public health, social welfare, and urban planning. Because of its breadth of outlook and outlook, it also offers an ideal basis for those seeking a general education in our increasingly interdependent world.

Fields

The Department of Anthropology recognizes the following four fields in anthropology:

Archaeology is the study of human cultures and the natural, social, ideological, economic, and political environments in which they operated in the recent and distant past. The graduate and undergraduate programs focus on methods of discovery (field and laboratory courses), strategies of analysis pertaining to long-term cultural evolution (theory, analytic, and topical courses), and the unfolding of prehistory in many regions of the world, including North America, Mesoamerica, South America, and several parts of the Old World (regional courses). Faculty members have long-standing interests in the origins and evolution of complexity, including early human adaptations, the political organization of complex hunters/gatherers, the origins of early village life, and the emergence and florescence of ancient cities and states. Faculty members maintain programs of field research involving many students in North America, Mesoamerica, South America, and East and South Asia.

Biological anthropology is the study of humans and other primates from a Darwinian point of view. The program focuses on the evolutionary ecology of early hominids, extant primates, and contemporary humans and includes training in evolutionary theory, behavioral ecology, evolutionary psychology, paleoanthropology, paleoecology, primate behavior, and mathematical modeling. Faculty members associated with the program have engaged in fieldwork in Africa, Central America, and Southeast Asia where ongoing projects include work on primate behavior, hominid evolution, and evolutionary psychology.

Linguistic anthropology is an interdisciplinary field that addresses the manifold ways in which language, interaction, and culture mutually organize each other in different communities worldwide. Linguistic anthropologists at UCLA have a variety of backgrounds and research interests that include face-to-face communica-
tion, language contact and change, language and politics, language socialization across the lifespan, verbal art and performance, and the relation of language to ideology, mind, emotion, and identity. Courses are offered in ethnographic approaches to discourse analysis, field methods, language ideology, conversation analysis, language socialization, and communication in urban communities, as well as on cross-cultural language practices.

Sociocultural anthropology concerns the examination and understanding of social and cultural systems and processes, and the human capacities that enable them. Its goal is to understand their operation in specific settings and to understand the experience of individuals who live in these diverse systems. Faculty members have engaged in fieldwork in almost every area of the world, but most notably in Africa, Latin America, East and Southeast Asia, and Oceania. They have also engaged in ethnographic research among Americans with diverse ethnic identities and in various institutional settings.

Bridging the four primary subfields are several other dimensions of anthropological study, including psychocultural anthropology and medical anthropology. Courses are also offered in the history and theory of anthropology and a wide range of anthropological methods.

**Undergraduate Majors**

**Anthropology BA**

The major is designed for students interested in an anthropological understanding of human behavior. One of the strengths of anthropology is its cross-cultural holistic and integrative approach with many fields, such as biology, history, linguistics, the social sciences, and many of the humanities.

**Learning Outcomes**

The Anthropology major has the following learning outcomes:

- Broad knowledge of archaeological, biological, sociocultural, and linguistic anthropology
- Familiarity with the history, methods, and current theoretical debates in the field
- General knowledge of, and developed skills working with, empirical and anthropological evidence
- Proficiency in library research, data interpretation, synthesis, and writing
- Proficiency formulating and answering relevant questions through critical reasoning, making use of current primary scientific literature, database searches, identification of appropriate sources, reading and understanding of papers, and discriminating research quality

**Entry to the Major**

**Transfer Students**

Transfer applicants to the Anthropology BA major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one human evolution course, one archaeology course, one sociocultural anthropology course, and one culture and communication course.

Refer to the [UCLA transfer admission guide](https://www.transfer.ucla.edu) for up-to-date information regarding transfer selection for admission.

**Requirements**

**Preparation for the Major**

**Required:** Anthropology 1, 2, 3, 4.

**The Major**

To gain a comprehensive understanding of the discipline as a whole, students must take two courses in the sociocultural anthropology field and one course in each of the other three fields (see Overview). Students may take any upper-division course in the given area to fulfill this requirement.

Students must complete 11 courses (44 to 52 units) as follows: (1) two upper-division courses in the sociocultural anthropology field (130–149) and one in each of the other three fields: archaeology (110–119), biological anthropology (120–129), and linguistic anthropology (150–159); (2) one upper-division regional cultures course (160–169); (3) one upper-division history/theory course selected from 100, 110, 111, 120, 124Q, 130, 131, 136A, 140, M150; (4) one upper-division methodology course selected from 110, CM110Q, C117, 126P, 135, 138P, M138O, 151, 195CE; and (5) three additional upper-division anthropology courses.

Students are strongly encouraged to enroll in 3 to 4 units of 89 and/or 189 courses to gain small seminar experience. Ideally, at least one of the units should be at the upper-division level.

**Honors Program**

The honors program offers research-oriented students an opportunity to engage in original research and analysis under the close supervision of faculty members and culminates in an honors thesis. The proposal, research, analysis, and writing of the paper take place over four terms via Anthropology 191HA through 191HD. Course 191HA is taken in winter quarter, and 191HB in spring quarter. Research should be done in summer, and courses 191HC and 191HD are taken in fall and winter quarters of the graduation year.

**Policies**

**Preparation for the Major**

Each course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better.

**The Major**

Each course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better.

**Honors Program**

To be admitted students should have a cumulative grade-point average of 3.0 overall and a 3.5 cumulative GPA in their upper-division Anthropology courses. The application for admission must be submitted during fall quarter. Ideal candidates should have junior or senior standing and have completed at least two upper-division anthropology courses. Students should contact the departmental honors adviser early in their studies for more information.

**Anthropology BS**

The major supplies an overview of human evolution and is designed to prepare students for careers in anthropology and the health sciences, including medicine, dentistry, public health, and nursing.

**Learning Outcomes**

The Anthropology major has the following learning outcomes:

- Broad knowledge of archaeological, biological, sociocultural, and linguistic anthropology
- Familiarity with the history, methods, and current theoretical debates in the field
- General knowledge of, and developed skills working with, empirical and anthropological evidence
- Proficiency in library research, interpreting data, synthesis, and writing
- Demonstrated knowledge and understanding of mathematics, physical sciences, and life sciences to meet pre-medical-school requirements
- Proficiency formulating and answering relevant questions through critical reasoning, making use of current primary scientific literature, database searches, identification of appropriate sources, reading and understanding of papers, and discriminating research quality

**Entry to the Major**

**Transfer Students**

Transfer applicants to the Anthropology BS major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one human evolution course, one archaeology course, one sociocultural anthropology course, one culture and communication course, two general biology courses for majors, one year of calculus, one year of general chemistry with laboratory, one year of general physics with laboratory, and one lower-division organic chemistry course.

Refer to the [UCLA transfer admission guide](https://www.transfer.ucla.edu) for up-to-date information regarding transfer selection for admission.

**Requirements**

**Preparation for the Major**

**Required:** Anthropology 1, 2, 3, 4; Chemistry and Biochemistry 14A, 14B, 14BL, and 14C, or 20A, 20B, 20L, 30A, and 30AL; Life Sciences 7A, 7B, 7C; 23L: Life Sciences 30A, 30B, and 40 or Statistics 13, or Mathematics 3A, 3B, 3C, and Statistics 12, or Mathematics 31A, 31B, and Statistics 12; Physics 5A, 5B, and 5C.

**The Major**

Students must complete nine courses as follows: (1) two upper-division courses in the sociocultural anthropology field (130–149) and one in each of the other three fields: archaeol-
ogy (110–119), biological anthropology (120–129), and linguistic anthropology (150–159); (2) one upper-division regional cultures course (160–169); (3) one upper-division history/theory course selected from 100, 110, 111, 120, 124Q, 130, 131, 136A, 140, M150; and (4) two additional upper-division anthropology courses. Students are strongly encouraged to enroll in 3 to 4 units of 89 and/or 189 courses to gain small seminar experience. Ideally, at least one of the units should be at the upper-division level.

Honors Program
The honors program offers research-oriented students an opportunity to engage in original research and analysis under the close supervision of faculty members and culminates in an honors thesis. The proposal, research, analysis, and writing of the paper take place over four terms via Anthropology 191HA through 191HD. Course 191HA is taken in winter quarter and 191HB in spring quarter. Research should be done in summer, and courses 191HC and 191HD are taken in fall and winter quarters of the graduation year.

Policies
Preparation for the Major
Each course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better.

The Major
Each course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better.

Honors Program
To be admitted students should have a cumulative grade-point average of 3.0 overall and a 3.5 cumulative GPA in their upper-division Anthropology courses. The application for admission must be submitted during fall quarter. Ideal candidates should have junior or senior standing and have completed at least two upper-division anthropology courses. Students should contact the departmental honors adviser early in their studies for more information.

Undergraduate Minor
Anthropology Minor
Students who wish to take a series of courses in anthropology, but major in another discipline, may be interested in the Anthropology minor. Students select courses from the four fields within anthropology (archaeology, biological anthropology, linguistic anthropology, sociocultural anthropology), although they are encouraged to focus the body of their coursework within one field.

Admission
To enter the minor, students must have an overall grade-point average of 2.0 or better.

The Minor
Required Lower-Division Courses (10 units): Two courses from Anthropology 1, 2, 3, 4.

Required Upper-Division Courses (20 units minimum): Core course (Anthropology 111, 120, 130, 140, or M150) from one of the four anthropological fields listed above; four additional courses. Students are encouraged to concentrate their upper-division coursework with a field of interest and are required to consult with the undergraduate adviser in planning their program of study.

Policies
A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Major
Anthropology MA, PhD Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Anthropology Lower-Division Courses
1. Human Evolution. (5) Lecture, three hours; discussion, one hour. Required as preparation for both bachelor’s degrees. General survey of human species. P/NP or letter grading.

2. Archaeology: Introduction. (5) Lecture, three hours; discussion, one hour; field trip. Required as preparation for both bachelor’s degrees. Introduction to study of culture and society in comparative perspective. Examples from societies around world to illustrate basic principles of formation, structure, and distribution of human institutions. Of special concern is contribution and knowledge that cultural diversity makes toward understanding problems of modern world. P/NP or letter grading.

3. Culture and Society. (5) Lecture, three hours; discussion, one hour; fieldwork. Required as preparation for both bachelor’s degrees. Introduction to study of culture and society in comparative perspective. Examples from societies around world to illustrate basic principles of formation, structure, and distribution of human institutions. Of special concern is contribution and knowledge that cultural diversity makes toward understanding problems of modern world. P/NP or letter grading.

4. Culture and Communication. (5) Lecture, three hours; discussion, one hour. Required as preparation for both bachelor’s degrees. Introduction to study of communication from anthropological perspective. Formal linguistic methods compared with ethnocentrically oriented methods focused on context-bound temporal unfolding of communicative activities. Topics include language in everyday life and ritual events, socialization, literacy, multilingualism, misconstruals, political discourse, and art-making as cultural activity. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

M67W. Making and Studying Modern Middle East. (3) Same as Middle Eastern Studies M50C.W. Lecture, three hours; discussion, one hour. Required: English Composition 3. Survey of modern Middle Eastern cultures through readings and films from Middle East and North Africa. Satisfies Writing II requirement. Letter grading.

88. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

88HC. Honors Contracts. (1) Tutorial, three hours. Limited to 20 students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses
100. History of Anthropology. (4) Lecture, three hours; discussion, one hour (when scheduled). Brief survey of development of Western social science, particularly anthropology, from Greek and Roman thought to emergence of evolutionary theory and concept of culture in late 19th century. Root paradigm of Western social science and its influence on such notables as Durkheim, Freud, Hall, Lombroso, Marx, Piaget, Terman, and others. Consideration of how this influences ethnocentrism and Eurocentrism, sexism, racism, perception of deviance, and view of culture in general. P/NP or letter grading.

Archaeology
110. Principles of Archaeology. (4) Lecture, three hours; discussion, one hour (when scheduled). Required: course 2. Intended for students interested in conceptual structure of scientific archaeology. Archaeological method and theory with emphasis on what archaeologists do and how and why they do it. Consideration of field strategies, formation processes, chronological frameworks, and other crucial principles of archaeological analysis and interpretation. P/NP or letter grading.

CM110Q. Introduction to Archaeological Sciences. (4) Same as Ancient Near East CM169.Q. Lecture, three hours. Basic understanding of newly introduced methods and techniques throughout field of archaeology to implement them and to appreciate and evaluate results of their use by others who have embedded them in their scholarly publications or theoretical models. Systematic instruction in digital data management and mining, scientific analysis of materials (including geological and biochemical techniques), and visual presentation of data and research results (ranging from simple graphs to virtual reality). Concurrently scheduled with course CM210Q. P/NP or letter grading.

111. Theory in Anthropological Archaeology. (4) Lecture, three hours. Required: course 2. Method and theory with emphasis on archaeology within context of anthropology. Themes include theoretical developments over last 50 years, structure of archaeological
reasoning, and selective survey of work on problems of general anthropological interest. P/NP or letter grading.

112P. Selected Topics in Historical Archaeology. (4) Lecture, three hours; discussion, one hour (when scheduled). Examination of selected examples of historical archaeology. Consult Schedule of Classes for topics and instructors. May be repeated for credit with topic change. P/NP or letter grading.

112Q. Archaeology of Chieftains. (4) Lecture, three hours. Examination of chieftains in cultural and political development of Africa, and ancient Near East. P/NP or letter grading.

112R. Cities Past and Present. (4) Lecture, three hours; discussion, one hour (when scheduled). Requisite: course 2 or 3. Examination of ancient and modern cities to evaluate how urban form developed and continues to thrive as human social phenomenon. Contemporary observations compared with archaeological case studies, including South America, Asia, Africa, and ancient Near East. P/NP or letter grading.

112S. Politics of Past. (4) Lecture, three hours; discussion, one hour (when scheduled). Declassified space images from Cold War era and open remote sensing data of 21st century provide new opportunities for studying landscape transformation in historical and modern landscapes. Consult Schedule of Classes for topics and instructors. May be repeated for credit with topic change. P/NP or letter grading.

M116R. Archaeological Landscapes of China. (4) Same as Chinese M183B. Lecture, three hours; discussion, one hour (when scheduled). Archaeological landscape in China during last 5,000 years. Social and political changes in urban landscapes with more conflicted identity in cities, retaining some of their prominence in spatial realm while less-articulated with political power. P/NP or letter grading.

116Q. Selected Topics in Archaeology of Southeast Asia. (4) Lecture, three hours; discussion, one hour (when scheduled). Study of selected topics in archaeology and prehistory of Southeast Asia from Pleistocene to historical periods, including past technological and economic developments, emergence of agriculture, and development of state level societies. May be repeated for credit with topic change. P/NP or letter grading.

116P. Archaeology of South Asia. (4) Lecture, three hours; discussion, one hour (when scheduled). Examination of methods of prehistoric and historic archaeology. Consult Schedule of Classes for topics and instructors. May be repeated for credit with topic change. P/NP or letter grading.

116S. Selected Topics in Archaeology of India. (4) Lecture, three hours; discussion, one hour (when scheduled). Study of selected topics in archaeology and prehistory of South Asia from Pleistocene to historical periods, including past technological and economic developments, emergence of agriculture, and development of state level societies. May be repeated for credit with topic change. P/NP or letter grading.

116X. Collaborative and Community-Engaged Archaeology. (4) Lecture, three hours; discussion, one hour (when scheduled). Fieldwork, 10 hours. Community and stakeholder engagement make anthropological practice more meaningful, especially when results of research are shared and used by communities. Anthropology is in great position to work with communities to empower them in strengthening their identity. There is increasing number of anthropologists and allied professionals who are involved in cross-disciplinary work and engagement with communities that they work with. Students interact with Philippine collaborators through online conference to discuss how community engagement research is relevant to Philippine cultures. Students work with community stakeholders in developing heritage education materials. P/NP or letter grading.

1117. Selected Laboratory Topics in Archaeology. (4) Lecture, one hour; laboratory, two hours. Specialized analysis of particular classes of cultural remains. Topic may be one of following: zooarchaeology, paleoethnobotany, ceramics, rectifying archaeological experiences. Laboratory experience with collections and data. May be repeated for credit with topic change. Concurrently scheduled with course CM217; P/NP or letter grading.

117P. Selected Laboratory Topics in Archaeology. (4) Lecture, three hours; laboratory, two hours. How archaeological research is furthered by specialized analysis of particular classes of cultural remains. Topics may include animal bones, plants, ceramics, rock art, handcrafts, and agriculture. Students work with community stakeholders in developing heritage education materials. P/NP or letter grading.

118Q. Conquest and Colonialism. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed especially for sophomores and juniors. How European conquest and colonialism changed landscapes, social, political, and economic relationships. Background provided for development of group research projects—finding resources, data gathering, analysis, interpretation, presentation, and training on how to embark on research in this field.

Computer laboratory component is included where student research is performed and presented in time map. P/NP or letter grading.

118P. Archaeology of South Asia. (4) Lecture, three hours; discussion, one hour (when scheduled). Archaeology of Harappan, early historic, and medieval periods in Indian subcontinent. Investigation of large-scale social movements such as Buddhism, as well as consideration of how past is interpreted in present. P/NP or letter grading.

Anthropology / 195

118Q. Conquest and Colonialism. (4) Lecture, three hours; discussion, one hour (when scheduled). How European conquest and colonialism changed landscapes, social, political, and economic relationships. Background provided for development of group research projects—finding resources, data gathering, analysis, interpretation, presentation, and training on how to embark on research in this field.

Computer laboratory component is included where student research is performed and presented in time map. P/NP or letter grading.

119. Selected Topics in Archaeology. (4) Lecture, three hours; discussion, one hour (when scheduled). Study of selected topics in archaeology. Consult Schedule of Classes for topics and instructors. May be repeated for credit with topic change. P/NP or letter grading.

Biological Anthropology


124P. Human Behavioral Ecology. (4) Lecture, three hours; discussion, one hour (when scheduled). Recommended requisites: courses 1 or 7B. Survey of research in human behavioral ecology. Review of natural and sexual selection, kin selection, and reciprocal altruism. Emphasis on current empirical studies of human behavior from evolutionary perspective, including social organization, sexual division of labor, parenting strategies, conflict, and cooperation. P/NP or letter grading.

124Q. Evolutionary Psychology. (4) Lecture, three hours; discussion, one hour (when scheduled). Recommended requisites: 1 course or 4 or Linguistics 1. Designed for juniors and seniors. How did human capacity for language evolve? Examination of origin of human language from biological, comparative, developmental, linguistic, and computational perspectives. Topics include evolutionary theory, linguistic structure, gesture and speech, animal communication, language evolution, language disorders, and computational models of language emergence. P/NP or letter grading.

124S. Human Behavior in Evolutionary Perspective. (4) Lecture, three hours; discussion, one hour (when scheduled). Examines human behavior from evolutionary perspective, including social organization, human reproductive strategies, and relationships with members of opposite sex. P/NP or letter grading.

124T. Evolution of Personality. (4) Lecture, three hours; discussion, one hour (when scheduled). Requisite: course 1 or 4 or Linguistics 1. Focuses on theories and evidence for differences between men and women in personality, mate selection, language, mating and parenting strategies, and relationships with members of opposite sex. P/NP or letter grading.

M124R. Evolution of Language. (4) Same as Communication M124R. Lecture, three hours; discussion, one hour (when scheduled). Recommended preparation: course 1 or 4 or Linguistics 1. Designed for juniors and seniors. How did human capacity for language evolve? Examination of origin of human language from biological, comparative, developmental, linguistic, and computational perspectives. Topics include evolutionary theory, linguistic structure, gesture and speech, animal communication, language evolution, language disorders, and computational models of language emergence. P/NP or letter grading.

124S. Human Behavior in Evolutionary Perspective. (4) Lecture, three hours; discussion, one hour (when scheduled). Recommended requisites: courses 1 or 7B. Survey of research in human behavioral ecology. Review of natural and sexual selection, kin selection, and reciprocal altruism. Emphasis on current empirical studies of human behavior from evolutionary perspective, including social organization, sexual division of labor, parenting strategies, conflict, and cooperation. P/NP or letter grading.

124Q. Evolutionary Psychology. (4) Lecture, three hours; discussion, one hour (when scheduled). Recommended requisites: 1 course or 4 or Linguistics 1. Designed for juniors and seniors. How did human capacity for language evolve? Examination of origin of human language from biological, comparative, developmental, linguistic, and computational perspectives. Topics include evolutionary theory, linguistic structure, gesture and speech, animal communication, language evolution, language disorders, and computational models of language emergence. P/NP or letter grading.

124T. Evolution of Personality. (4) Lecture, three hours; discussion, one hour (when scheduled). Requisite: course 1 or 4 or Linguistics 1. Focuses on theories and evidence for differences between men and women in personality, mate selection, language, mating and parenting strategies, and relationships with members of opposite sex. P/NP or letter grading.

124S. Human Behavior in Evolutionary Perspective. (4) Lecture, three hours; discussion, one hour (when scheduled). Examines human behavior from evolutionary perspective, including social organization, human reproductive strategies, and relationships with members of opposite sex. P/NP or letter grading.
Lecture, three hours; discussion, one hour (when scheduled). Requisite: course 3. Examination of how discourses of race, gender, sexuality intersect in formation of identities, structures of inequality, and notions of cultural difference. Draws upon scholarship in feminist anthropology, ethnic studies, and film studies to develop analytical tools for examining selection of films that address dynamic of race, gender, sexuality and cultural difference across time (historically) and across space (in different geographical locations) in transnational contexts. P/NP or letter grading.

136A. Introduction to Psychological Anthropology: Historical Development. (4) Lecture, three hours; discussion, one hour (when scheduled). Requisite: course 3. Limited to juniors/seniors. Survey of field of psychological anthropology, with emphasis on early foundations and historical development of field. Topics include study of psychology, deviance and deviance, altered states of consciousness, cognition, motivation, and emotion in different cultural settings. P/NP or letter grading.

136B. Introduction to Psychological Anthropology: Research. (4) Lecture, three hours; discussion, one hour (when scheduled). Requisite: course 3. Designed for juniors/seniors. Survey of field of psychological anthropology, with emphasis on current topics and research questions. Topics include study of psychology, deviance, altered states of consciousness, cognition, motivation, and emotion in different cultural settings. P/NP or letter grading.

136M. Medical Anthropology. (4) Lecture, three hours; discussion, one hour (when scheduled). Prerequisite: course 3. Relation between culture and deviance and forms of deviant and abnormal behavior. Study of different views on population movement from refugee crisis and migration tendencies to policies surrounding newcomers’ incorporation and anti-immigration political strategies. Examination of motivations for migration, both voluntary and involuntary movements (e.g., political, economic, social, and ethnic violence). P/NP or letter grading.

137P. Anthropology of Deviance and Abnormality. (4) Lecture, three hours; discussion, one hour (when scheduled). Prerequisite: course 3. Relation between culture and recognition of, responses toward, and forms of deviant and abnormal behavior. P/NP or letter grading.

137Q. Psychoanalysis and Anthropology. (4) Lecture, three hours; discussion, one hour (when scheduled). Exploration of mutual relations between anthropology and psychoanalysis, considering both theory and method. History of current developments in psychoanalytic anthropology: critiques of psychoanalytic theory and method, focus on cultural psychoanalytic approach. P/NP or letter grading.
138P. Field Methods in Cultural Anthropology. (5) Lecture, three hours; discussion, one hour. Designed for juniors/seniors. Introduction to skills and tools of data collection through fieldwork in cultural anthropology. Emphasis on techniques, methods, and concepts of ethnographical research and how basic observational information is systematized for presentation, analysis, and cross-cultural comparison. P/NP or letter grading.

M138Q. Fieldwork in Asian American and Pacific Islander Communities. (4) Same as Asian American Studies M143A.) Lecture, three hours; discussion, one hour. Introduces qualitative research methods and application of techniques in data collection, analysis, and reporting. Critical reflection of issues related to identity, migration, multiculturalism, tourism, and indigenous issues and excursions and guest lecturers from local community included. Given in Hawai‘i. P/NP or letter grading.

139. Selected Topics in Cultural Anthropology. (4) Lecture, three hours; discussion, one hour (when scheduled). Study of selected topics in cultural anthropology. Consult Schedule of Classes for topics and instructors. May be repeated for credit with topic change. P/NP or letter grading.

140. Study of Social Systems. (4) Lecture, three hours; discussion, one hour (when scheduled). Enforced requisites: course 2, 3. Introduction to more specialized social anthropology courses. Evaluation of variation in sociocultural systems. Special emphasis for understanding of inequality. Basic frameworks of anthropological analysis; historical context and development of social anthropology discipline. P/NP or letter grading.

141. Careers in Anthropology. (4) Lecture, three hours. Overview of various career paths for students with degrees in anthropology. Helps students develop academic and professional skills in preparation for life after UCLA. Focus on ways in which one can apply anthropological knowledge to their professions, and analytical skills to range of careers. Guest speakers discuss how they have applied their anthropology degrees to their work outside of academia. P/NP or letter grading.

142P. Anthropology of Religion. (4) Lecture, three hours. Survey of various methodologies in comparative study of religious ideologies and action systems, including understanding particular religions through descriptive and structural approaches, and identification of social and psychological factors that may account for variation in religious systems cross-culturally. P/NP or letter grading.

142Q. Anthropology of Religious Minorities. (4) Lecture, three hours. Analytical overview of ethnic and religious minorities in contemporary Middle East and North Africa structured around sociocultural experiences of ethnic and religious groups to understand political and economic relations. P/NP or letter grading.

143. Economic Anthropology. (4) Lecture, three hours. Requisites: course 3. Introduction to anthropological perspectives for interpretation of economic life and institutions. Economic facts to be presented in their larger social, political, and cultural contexts; examination of modes of distribution, production, and consumption of goods and services in their relation to social networks, power structures, and institutions of family, kinship, and class. P/NP or letter grading.

C144M. Multispecies Anthropology. (4) Lecture, three hours. Survey of human-animal relationships across history, from origins of domestication to present-day debates over animal rights, and very different ways societies distant in time and space from our own have constrained inner lives of other species and their ties to human others. Concurrently scheduled with course 1. P/NP or letter grading.

M144P. Constructing Race. (4) Same as African American Studies M159P and Asian American Studies M169P.) Lecture, three hours; discussion, one hour (when scheduled) on construction of race, socially constructed category, from anthropological perspective. Consideration of development of racial categories over time and in different regions, racial passing, multiracial identity in U.S., whiteness, race in popular culture, and race and identity. P/NP or letter grading.


C144S. Repatriation of Native American Human Remains and Cultural Objects. (4) Lecture, two hours; discussion, one hour (when scheduled). Study of materials and formal ethnographic accounts. P/NP or letter grading.

145S. Culture, Gender, Sexuality. (4) Same as Gender Studies M154Q.) Lecture/discussion, three hours. Designed for majors in anthropology and history of anthropological study of women’s lives and gender roles and sexualities. P/NP or letter grading.

145Q. Selected Topics in Gender Systems. (4) Same as Gender Studies M154Q.) Lecture, three hours. Recommended concurrently with course 160A. Examination of women’s participation in social, political, and economic life in terms of gender roles, and institutional systems. Study of relevant theoretical issues using ethnography, case study, and presentations. Consult Schedule of Classes for topics and instructors. May be repeated for credit with topic change. P/NP or letter grading.

145R. Women and Social Movements. (4) Same as Gender Studies M154R.) Lecture, three hours. Recommended preparation: prior gender studies or anthropology courses. Comparative study of women’s political action with different ethnic groups and political goals. Bridges work from anthropology, psychology, linguistics, and cognitive science. Topics include cross-cultural perspectives on child development and wide range of anthropological data. Examination of ways in which language development and socialization interface with culture, modality, inequality, education, and cognition. P/NP or letter grading.

150. Language in Culture. (5) Lecture, three hours; fieldwork, two hours. Requisite: course 4 or Linguistics 20. Study of language as aspect of culture; relation of cultural thought to language and language classification of experience. Holistic approach to study of language, with emphasis on relation of linguistic anthropology to fields of biological, cultural, and social anthropology, as well as archeology. (Core course for linguistics field.) P/NP or letter grading.

151. Ethnography of Everyday Speech. (5) Lecture, three hours; fieldwork. Requisite: course 4. Designed for juniors/seniors. Course has two interrelated objectives: (1) to introduce students to ethnography of communication—description and analysis of situated communicative behavior—and sociocultural knowledge that it reflects and (2) to train students to recognize, describe, and analyze relevant linguistic, proxemic, and kinesic aspects of face-to-face interaction. P/NP or letter grading.

M152P. Language Development and Socialization. (4) Same as Psychology M149.) Lecture, three hours; discussion, one hour (when scheduled). Exploration of processes through which children learn structures and practices of language and become competent participants in linguistic and social worlds around them. Examination of language use and socialization over childhood, across communities of practice, and among different ethnic or economic groups. Bridges work from anthropology, psychology, linguistics, and cognitive science. Topics include cross-cultural perspectives on child development and wide range of anthropological data. Examination of ways in which language development and socialization interface with culture, modality, inequality, education, and cognition. P/NP or letter grading.

152Q. Language, Culture and Social Organization through Life Cycle. (4) Lecture, three hours. Requisite: course 4. Examination of forms of participation and talk-in-interaction across various phases of life cycle from birth to old age, using videotaped interactions of naturally occurring activities. How language and interaction within specific contexts are used to constitute identity and how interaction order resulting from face-to-face interaction provides building blocks for larger formations that arise from such activities. P/NP or letter grading.

M153Q. Language, Culture, and Education. (4) Lecture, three hours. Requisite: course 4. Examination of various ways in which culture and language in particular are not only socially constructed but also reproduce and outgrow, but also very conceptions of what normal development processes and desirable educational outcomes are. P/NP or letter grading.

153. Language and Identity. (4) Lecture, three hours. Requisite: course 4. Language as social phenomenon. Introduction to several angles from which language use can be critically examined as integral to interactions between individuals and between social groups. P/NP or letter grading.

Linguistic Anthropology

M150. Language in Culture. (5) Same as Linguistics M146.) Lecture, three hours; discussion, one hour; fieldwork, two hours. Requisite: course 4 or Linguistics 20. Study of language as aspect of culture; relation of cultural thought to language and language classification of experience. Holistic approach to study of language, with emphasis on relation of linguistic anthropology to fields of biological, cultural, and social anthropology, as well as archeology. (Core course for linguistics field.) P/NP or letter grading.

M152P. Language Development and Socialization. (4) Same as Psychology M149.) Lecture, three hours; fieldwork. Requisite: course 4. Designed for juniors/seniors. Course has two interrelated objectives: (1) to introduce students to ethnography of communication—description and analysis of situated communicative behavior—and sociocultural knowledge that it reflects and (2) to train students to recognize, describe, and analyze relevant linguistic, proxemic, and kinesic aspects of face-to-face interaction. P/NP or letter grading.

151. Ethnography of Everyday Speech. (5) Lecture, three hours; fieldwork. Requisite: course 4. Designed for juniors/seniors. Course has two interrelated objectives: (1) to introduce students to ethnography of communication—description and analysis of situated communicative behavior—and sociocultural knowledge that it reflects and (2) to train students to recognize, describe, and analyze relevant linguistic, proxemic, and kinesic aspects of face-to-face interaction. P/NP or letter grading.

152Q. Language, Culture and Social Organization through Life Cycle. (4) Lecture, three hours. Requisite: course 4. Examination of forms of participation and talk-in-interaction across various phases of life cycle from birth to old age, using videotaped interactions of naturally occurring activities. How language and interaction within specific contexts are used to constitute identity and how interaction order resulting from face-to-face interaction provides building blocks for larger formations that arise from such activities. P/NP or letter grading.

153. Language and Identity. (4) Lecture, three hours. Requisite: course 4. Language as social phenomenon. Introduction to several angles from which language use can be critically examined as integral to interactions between individuals and between social groups. P/NP or letter grading.
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154P. Multilingualism: Communities and Histories in Contact. (4) Lecture, three hours. Requisite: course 4. Examination of communicative, political, and poetic aspects of use of two or more languages (multilingualism) by individuals and by groups. Broader themes in social theory, anthropological inquiry, sociolinguistics, and literary studies in lectures to contextualize class readings. P/NP or letter grading.

154Q. Gender and Language across Communities. (4) Lecture, three hours; discussion, one hour (when scheduled). Requisite: course 4. Examination of role language plays in social construction of gender identities and ways in which gender shapes language use and ideologies. P/NP or letter grading.

154SL. Gender and Language across Communities. (4) Lecture, three hours; discussion, one hour. Requisite: course 4. Examination of how language practices contribute to expression of gendered identities in different social groups and situations. Completion of 20 hours of service learning in community service program coordinated through Center for Community Learning and Civic Engagement. Articulation of consequences of current world-wide loss of linguistic diversity and revelation of kinds of efforts that members of threatened heritage language communities have produced in their attempt to revitalize their languages. Loss of language as half of world’s languages by end of 21st century can only be explained as outcome of such factors as nationalism, global economic forces, language ideologic conflict, and shifts away from the use of indigenous and tribal languages. Since loss of such languages means both reduction of cultural as well as linguistic diversity, many affected communities have engaged in various language renewal practices. Examination of some of these strategies that have been attempted, including immersion, language and culture classes, master-apprentice, interactive multimedia, mass media approaches, and language policy-reform service that is conducted in and meets needs of communities. P/NP or letter grading.

155. Native American Languages and Their Speakers. (4) Lecture, three hours; discussion, one hour. Requisite: course 4. American Indian Studies M10. Introduction and comparative analysis of sociocultural aspects of language ideologies and language use in indigenous speech communities. Examination of linguistic diversity of discourse practices for both everyday forms of speaking as well as specialized registers used in particular cultural contexts. Role of language and communication in Native American education texts is also examined. Considerable attention is paid to Native American verbal art because of its cultural importance. Examination also of language shift away and towards indigenous groups to reclaim and revitalize heritage languages. Role of linguistic racism directed at Native Americans and hegemonic influence of nation-states is also examined. P/NP or letter grading.

M156. Language Endangerment and Linguistic Revitalization. (4) (Same as American Indian Studies M162.) Lecture, three hours; activity, one hour. Requisites: course 4, American Indian Studies M10. Examination of consequences of current world-wide loss of linguistic diversity and revelation of kinds of efforts that members of threatened heritage language communities have produced in their attempt to revitalize the languages. Loss of language as half of world’s languages by end of 21st century can only be explained as outcome of such factors as nationalism, global economic forces, language ideologic conflict, and shifts away from the use of indigenous and tribal languages. Since loss of such languages means both reduction of cultural as well as linguistic diversity, many affected communities have engaged in various language renewal practices. Examination of some of these strategies that have been attempted, including immersion, language and culture classes, master-apprentice, interactive multimedia, mass media approaches, and language policy-reform approaches. Evaluation of effectiveness of these measures and of very imagery used to discuss language endangerment. P/NP or letter grading.

C157P. Language and Politics. (4) Lecture, three hours; discussion, one hour (when scheduled). Requisite: course 4. Use of recent political events to collect, learn how to analyze, and write up short pieces on political talk, primarily in U.S. Concurrently scheduled with course C257P. P/NP or letter grading.

M158. Culture of Jazz Aesthetics. (4) (Same as Ethnomusicology M130 and Global Jazz Studies M130.) Lecture, three hours. Recommended requisite: course 3 or 4 or permission of Department Chair. Analysis of jazz from point of view of musicians who shaped jazz as art form in 20th century. Listening to and interacting with professional jazz musicians who answer questions and give musical demonstrations. Analytical resources and historical knowledge of musicians and ethnomusicologists combined with those interested in jazz as cultural tradition. P/NP or letter grading.

158P. Global Hip Hop Culture(s): Hip Hop, Race, and Social Justice from South Central to South Africa. (4) Lecture, three hours; discussion, one hour (when scheduled). Requisite: course 4. Focus on hip hop culture—movement that has captured minds of youth around world shaping youth identities, ideologies, styles, languages, fashions, and physical and political stances. Through documentaries, readings, and music listening sessions, exploration of various hip hop scenes that comprise global hip hop nation—multilingual, multietnic movement that often resists geopolitical status quo. P/NP or letter grading.

159. Selected Topics in Linguistic Anthropology. (4) Lecture, three hours; discussion, one hour (when scheduled). Study of selected topics in linguistic anthropology. Consult Schedule of Classes for topics and instructors. May be repeated for credit with topic change. P/NP or letter grading.

Regional Cultures

160A. Native North Americans. (4) Lecture, three hours; discussion, one hour (when scheduled). Requisite for seniors. Consideration of diversity of Native American societies north of Mexico, including their origins, formation, and development. Particular attention is paid to subsistence and kinship relations as to their relationship to social institutions and cultural practices, especially religion. P/NP or letter grading.

160B. Change and Continuity among Native North Americans. (4) Lecture, three hours. Requisite: course 160A. Consideration of change. Native American societies and cultures have undergone since European contact. Emphasis on patterns of adaptation and continuity as Native Americans confronted colonization and its implications. P/NP or letter grading.

161. Latin American Communities. (4) Lecture, three hours. Overview of social and cultural anthropology of small communities in Latin America. Similarities and contrasts in social organization and interpersonal relations described in context of economic, political, and cultural environments. P/NP or letter grading.

162. Ethnography of South America. (4) Lecture, three hours. Introduction to ethnography of South American Indians, with special emphasis on Lowland South America. Survey of history and development of man and society in this world area and examination of exemplary cultures symptomatic of various levels of cultural achievement. P/NP or letter grading.

163P. Ideology and Social Change in Contemporary China. (4) Lecture, three hours; discussion, one hour (when scheduled). Introduction to sociocultural changes in China from 1949 to present. Topics include ideology and politics in everyday life, social stratification and mobility, cultural construction of socialist person, changes in courtship, marriage, and family, and political economic policies of reforms in post-Mao era. P/NP or letter grading.

163Q. Societies of Central Asia. (4) Lecture, three hours; discussion, one hour (when scheduled). Overview of culture and society among diverse peoples of Inner Asia, including Mongolia, Tibet, and Soviet Central Asia. Topics include environment and economic adaptation, politics in traditional isolation and within framework of recent national integration, kinship, forms of marriage, and status of women (when scheduled) and social order in Hindu/Buddhist culture contact zone, and current problems of modernization. P/NP or letter grading.

163R. Japan. (4) Lecture, three hours. Overview of contemporary Japanese society. General introduction, kinship, marriage and family life, social mobility and education, norms and values, religions, patterns of interpersonal relations, social deviance. P/NP or letter grading.

166P. Sub-Saharan Africa. (4) Lecture, three hours. Issues of ecology and political economy; continuing impacts of colonialism, nationalism, and current challenges to Africans and African relations. Examination of Africa’s significance to development of anthropology. Cultural background for understanding events in contemporary Africa provided. P/NP or letter grading.

M166Q. Culture Area of Maghrib (North Africa). (4) (Same as Arabic M171 and History M108C.) Lecture, three hours. Designed for juniors/seniors. Introduction to culture area of North Africa, including Algeria, Tunisia, Libya, also known as Maghrib or Tamazgha. Topics include changing notions of personal, tribal, ethnic, linguistic and religious identities; colonialism; gender and legal rights, changing representations of Islam, and relations in region’s public spaces, P/NP or letter grading.

167. Culture Area of Middle East. (4) Lecture, three hours. Study of Middle East has suggested many theories as to developmental history of Middle East as culture area, and Islam as basis of its shared tradition. P/NP or letter grading.

168P. Cultures of Pacific. (4) Lecture, three hours. Four major culture areas of Australia, Melanesia, Polynesia, and Micronesia. General geographical features, prehistory, and language distribution of whole region. Distinctive sociocultural features of each culture area presented in context of their adaptive significance. P/NP or letter grading.

169. Gender, Ethnic Identity and Ethnic Relations in Hawai‘i. (4) (Same as Asian American Studies M143C) Lecture, three hours; discussion, one hour. Continuing construction and expression of ethnic identity in various cultural forms and sociocultural changes in Hawai‘i. Overview of theoretical approaches to and historic concepts in study of ethnic identity and ethnic relations. Discussion of historical and contemporary aspects of ethnic identity and ethnic relations in Hawai‘i. Given in Hawai‘i, P/NP or letter grading.

169. Selected Topics in Regional Cultures. (4) Lecture, three hours; discussion, one hour (when scheduled). Study of selected topics in regional cultures. Consult Schedule of Classes for topics and instructors. May be repeated for credit with topic change. P/NP or letter grading.

Specialized Studies

188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced requisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SB. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced requisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to design and finalize course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced requisite: course 188SB. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE 88S course. Individually designed content. Letter grading.


189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through independent research, writing, readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

191HA. Beginning Seminar. (4) Seminar, three hours. Limited to first-year program students. Survey of major research strategies in anthropology to aid honors students in developing research proposals. Letter grading.

191HB. Field Methods. (4) Seminar, three hours. Limited to first-year program students. Survey of major field methods in anthropology to prepare students to conduct their own field research. Letter grading.

191HC. Data Analysis. (4) Seminar, three hours. Limited to anthropology honors program students. Survey of major forms of data analysis in anthropology to aid honors students in analysis of their own research data. Letter grading.

191HD. Writing for Anthropology. (4) Seminar, three hours. Limited to anthropology honors program students. Teaching of writing skills, with focus on how to write honors theses. Letter grading.

191HE. Writing for Publication and Conference Presentation. (4) Seminar, three hours. Limited to anthropology honors program students. Preparation of honors theses for publication and for conference presentations and posters. Letter grading.


194. Research Group Seminars: Anthropology. (1) Seminar, one hour. Limited to graduate students who are part of research group or internship. Discussion of research methods and current literature in discipline. Faculty members or students present. May meet concurrently with graduate research seminar. May be repeated for credit with topic change. P/NP grading.

195CE. Community and Corporate Internships in Anthropology. (4) Tutorial, to be arranged. Limited to juniors/seniors. Internship in corporate, governmental, or nonprofit setting coordinated through Center for Community Engagement. Students submit written assignments, attend biweekly meetings with graduate student instructor, and write final research paper. Faculty mentor and graduate student instructor construct series of readings to explore key issues related to internship site. May be repeated for credit with consent of Center for Community Engagement. No more than 8 units may be applied toward major; units applied must be taken for letter grade. May not be applied toward concentration or distribution requirements. Individual contract with supervising faculty member required. P/NP or letter grading.

197. Individual Studies in Anthropology. (2 to 8) Tutorial, to be arranged. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned readings and tangible evidence of mastery of subject to be negotiated between instructor and student. May be repeated for credit. Individual contract required. P/NP or letter grading.

199. Directed Research in Anthropology. (2 to 8) Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culuminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

200. Anthropology Graduate Proseminar. (4) Seminar, three hours. Exposes incoming graduate students to contemporary view of anthropology by using work of UCLA faculty members to identify cross-cutting themes that bridge four fields of discipline and represent state of art of field. Historical overview of field and tracing of formation of discipline. Faculty guest speakers engage in discussion on aspects of their work that intersect with one or more of topical threads discussed in class or more broadly intersect with other or more student discussants. Discussion of speaker’s work, instructor and student responses, and weekly readings selected from faculty member’s work and positioning speaker’s work in broader historical context. Letter grading.

201A-M201B. Graduate Core Seminars: Archaeology. (4-4) (Same as Archaeology M201A-M201B) Seminar, three hours. Course M201A is required of all anthropology graduate students. Seminar discussion based on carefully selected list of 25 major works related to development of archaeology in social sciences (M201A) and humanities (M201B). Core seminars prepare students for oral examinations and development of culminating project. S/U or letter grading.

201C. Archaeological Research Design. (4) (Same as Ancient Near East CM269.) Seminar, three hours. Requisites: courses M201A, M201B. How to design archaeological projects in preparation for MA thesis or PhD phase. Students do exploratory research and make written preliminary research design that could form basis for extensive paper, grant application, or oral examination. Students work closely with faculty members and report weekly on their progress. Preparation of at least two oral progress-report presentations, one on theoretical framework and one on practical aspects of project. Final written research design that incorporates theoretical and practical aspects of research and formulates bridging arguments required. S/U or letter grading.

202A. Core Seminar: Biological Anthropology Colloquium. (4) Seminar, three hours. Required of anthropology students in biological anthropology subfield. Discussion focused on introducing students to field, and providing opportunity to present on current research, and to learn about, and engage with, work being done by others in department. Letter grading.

202B. Core Seminar: Biological Anthropology. (4) Seminar, three hours. Required of anthropology students in biological anthropology subfield. First in two-course series. Examination of theoretical and empirical writings that shaped biological subfield, and evolutionary studies of behavior more generally. Topics include evolutionary theory, paleoanthropology, population genetics, and evolutionary game theory. Letter grading.

202C. Core Seminar: Biological Anthropology. (4) Seminar, three hours. Required of anthropology students in biological anthropology subfield. Second in two-course series. Examination of theoretical and empirical writings that shaped biological subfield, and evolutionary studies of behavior more generally. Topics include evolutionary theory, primatology, evolutionary psychology, cultural evolution, and human behavioral ecology. Letter grading.


203C. Core Seminar: Sociocultural Anthropology—Scientific and Interpretive Frameworks in Contemporar y Anthropology. (4) Seminar, three hours. Recommended prerequisite: completion of selected contemporary works and issues in field of sociocultural anthropology. Letter grading.

204A. Core Seminar: Linguistic Anthropology. (4) Seminar, three hours. Designed to familiarize graduate students with central theoretical and methodological concepts in linguistic anthropology. Study of classic and contemporary texts, focusing on relationship between language and culture. Focus on linguistic anthropological theory, with additional discussion of methodologies within and related to discipline including ethnographic fieldwork, conversational analysis, syntactic analysis, sociophonetic analysis, sociolinguistic interviewing, and philosophical approaches. Letter grading.

204B. Core Seminar: Linguistic Anthropology. (4) Seminar, three hours. Survey of recent full-length ethnographic works in linguistic anthropology to engage with methods, theories, and theoretical frameworks being used across subfield. Consideration of texts’ relationship to works in other subfields, related disciplines, and prior approaches to understanding interplay between language, context, and culture. Consideration also of ethnographic writing as genre, and critical engagement with ways that authors present data, marshal theory, and present arguments within book format. This course envisions and problematizes very different generic expectations for dissertation writing within anthropology, allowing for additional professionalization component. Letter grading.

Archaeology


210Q. Introduction to Agricultural Sciences. (4) (Same as Ancient Near East CM289.) Lecture, three hours. Basic understanding of newly introduced methods and techniques throughout field of archaeology to implement them and to appreciate and evaluate results of their use by others who have embodied them in their scholarly publications or theoretical models. Systematic instruction in digital data management and mining, scientific analysis of material remains (including geological, chemical, and visual presentation of data and research results (ranging from simple graphs to virtual reality). Concurrently scheduled with course CM110Q. S/U or letter grading.

211. Classification in Archaeology: Method and Theory. (4) Seminar, three hours. Limited to graduate anthropology and archaeology students. Discussion of issues that have guided arguments about how archaeological classification of artifacts should be conducted, with focus on ceramic classification and discovery of cultural types. Methods for implementing discovery approach to classification illustrated with lithic and pottery examples. Review of relationship between classification, style, and function. S/U or letter grading.

212P. Explanation of Societal Change. (4) Seminar, three hours. Examination of processes of societal evolution, emphasizing usefulness of variety of explanatory models from general systems theory, ecology, anthropological, and other sources. Specific research questions vary with each course offering. May be repeated for credit. S/U or letter grading.

212Q. Archaeology of Urbanism. (4) Seminar, three hours. Evaluation of cities as most complex form of human population center, using both archaeological and modern examples. Observations about material culture and space enable assessment of social dynamics as cities are constructed and lived in by variety of different ethnic, economic, ritual, and political groups. S/U or letter grading.
214. Selected Topics in Prehistoric Civilizations of New World. (4) Seminar, three hours. Mesoamerican and Andean civilizations normally constitute major focus of seminar. May be repeated for credit. S/U or letter grading.

M216. Topics in Asian Archaeology. (4) (Same as Art History M258B.) Seminar, three hours. Designed for graduate students. Topics may include identification of ethnic groups in archaeology, archaeology of region, archaeological reflections of commerce and trade and their influence on social development, archaeology of language dispersal, cultural contact and nature of cultural influence. S/U or letter grading.

CM217. Selected Laboratory Topics in Archaeology. (4) (Same as Archaeology M205A.) Lecture, one hour; laboratory, two hours. Designed for graduate students in archaeology or in other departments. Specialized analysis of problems in classes of cultural remains. Topic may be one of following: zoooarchaeology, paleoethnobotany, lithic analysis, rock art. Laboratory experience with collections and data. May be repeated for credit with topic change. Concurrently scheduled with course C117. S/U or letter grading.

219. Selected Topics in Anthropological/Archaeological Theory. (4) Seminar, three hours. Designed for graduate students. Variable topics course on important theoretical trends in anthropological and archaeological theory. Topics include early village societies, specialization and cultural complexity, ethnography for archaeologists, society, culture, history, and material and all societies, materialist/idealist debates, urbanism, and exchange systems. May be repeated for credit. S/U or letter grading.

Biological Anthropology


222. Graduate Core Seminar: Biological Anthropology in Review. (4) Seminar, three hours. Graduate core course in biological anthropology. Topics include evolutionary theory, behavior of nonhuman primates, hominid evolutionary history, and contemporary human variation. Letter grading.

223. Experimental Biological Anthropology. (2) Seminar, two hours. Research seminar for graduate students conducting experimental research in biological anthropology to assist students in developing research ideas and methods and analyzing results. S/U grading.

229. Current Problems in Biological Anthropology. (4) Seminar, three hours. Detailed examination of current research in biological anthropology (specific topics to be announced). Emphasis on nature of hypotheses, research methods, and interpretation of data for faculty research. May be repeated for credit. S/U or letter grading.

Sociocultural Anthropology


232P. Anthropology and Media Theory. (4) Seminar, three hours. Limited to graduate students. Examination of theories of media and media-related aspects of contemporary visual anthropology very broadly defined, including issues of interpretation, production, and reception of visual media, which includes ethnographic, documentary, and art film, in addition to television programming. S/U or letter grading.

232Q. Ethnographies of Information Technology. (4) Seminar, three hours. Emerging work on new information economy, with emphasis on ethnography. Reading of anthropological work and materials from range of disciplines, including sociology, geography, urban studies, and management studies. S/U or letter grading.

233P. Advanced Seminar: Medical Anthropology. (4) Seminar, three hours. Limited to 15 students. Examination of interrelationships between society, culture, ecology, health, and illness. Bases for written critical analysis and class discussion provided through key theoretical perspectives. S/U grading.

M23Q. Latin America: Traditional Medicine, Shamanism, and Folk Illness. (4) (Same as Community Health Sciences M264 and Latin American Studies M264.) Lecture, three hours. Recommended preparation: familiarity with Latin American languages, Spanish proficiency. Reading of articles on traditional medicine and shamanism in Latin America and exploration of range of indigenous and mestizo groups diagnosis and treatment of folk illness and Western-defined diseases with variety of health-seeking methods. Examination of art, music, and ritual and case examples of religion and healing practices via lecture, film, and audio-tape. Letter grading.


237T. Narrative and Times of Trouble. (4) Seminar, three hours. Recommended requisite: one course from 203A, 203B, 203C, 204, or 252A. Exploration of how linguistic and psychosocial medical anthropology inform each other in relation to narrative and times of trouble. Topics include narrative sense-making in response to illness and misfortune; phenomenology of time; narrative, healing, and experiencing; remembering through narrative; narrative subjectivity; and narrative and selves in motion. S/U or letter grading.

234. Mind, Medicine, and Culture. (2) Seminar, two hours. Recommended requisite: group hosting regular talks and discussions with scholars from UCLA and beyond. Group provides forum for exploring recent research and classical and contemporary theoretical perspectives that inform psychocultural studies and medical anthropology. S/U grading.


236. Seminar: Psychocultural Studies and Medical Anthropology. (4) Seminar, three hours. Devoted to present state of research in psychocultural studies. Survey of work in child development and socialization, personality, psychobiology, transcultural psychiatry, development of self in psychoanalytic and cultural perspectives. On S/U or letter grading.

M237. Psychological Anthropology. (4) (Same as Psychiatry M272.) Seminar, three hours. Various psychological issues in anthropology, both theoretical and methodological. Areas of interest include such things as culture and theory, culture and personality, and culture psychiatry. Discussion of questions relating to symbolic and unconsciousness processes as they relate to culture. Topics vary from term to term. May be repeated for credit with topic change. S/U or letter grading.

M238. Native American Revitalization Movements. (4) (Same as History M260C.) Lecture, two hours; discussion, one hour. Examination of recent developments in understanding gender systems cross-culturally, with emphasis on relationship between systems of gender, economy, ideological systems, and social inequality. Selection of ethnographic cases from recent literature. S/U or letter grading.

C244M. Multispecies Anthropology. (4) Lecture, three hours. Survey of human-animal relationships across history, from origins of domestication to present-day debates over animal rights, and very different ways societies distant in time and space from contemporary humans have conceptualized and theorized about these species and their ties to human others. Concurrently scheduled with course C144M. S/U or letter grading.


C244S. Repatriation of Native American Human Remains and Cultural Objects. (4) Lecture, two hours; discussion, one hour. Native Americans have recently been successful in obtaining passage of federal and state laws repatriating human remains and cultural objects to them. Examination of this phenomenon. May be concurrently scheduled with course C144S. S/U or letter grading.

M245. Critical Theory of African Diaspora. (4) (Same as African American Studies M230.) Seminar, four hours. Introduction to variety of ideas that underlie articulation of construct of African diaspora. Structured through understanding of African diaspora as historical formation, with focus on questions that are distinctly intellectual project. Exploration of ways scholars have conceptualized and theorized diasporic condition of Black peoples. Consideration of who belongs to African diaspora community and the community is imagined. S/U or letter grading.
246. Contemporary Problems in Africa. (4) Seminar, three hours. Problematic issues in Africa in light of classical anthropological literature and recent work by anthropologists and other fieldworkers in Africa, with cases from eastern and southern Africa. S/U or letter grading.

M247P. Japan in Age of Empire. (4) (Same as Asian M239 and History M266.) Seminar, three hours. Designed since late-19th century, Japan expanded its empire into East and Southeast Asia. Coverage of that period and array of anthropological studies conducted in Japan’s colonies and occupied areas. Students explore areas of study of colonialism. S/U or letter grading.

M247G. Central Asian Studies: Discipline, Methods, Debates. (2) (Same as History M287 and Near Eastern Languages M287.) Seminar, two hours. Introduction to study of Central Asia as practiced in disciplines and social sciences disciplines. S/U grading.

247R. Modernization and Taiwan Indigenous Societies. (4) Seminar, three hours. Historical examination of impact of modernization on indigenous populations in Taiwan beginning with Han colonization. Examination of integration of indigenous groups into state politics and market economy, and state-sponsored courses that forced erasure of indigenous cultures and knowledge, resistance by groups to assimilationist processes through emergence of new strategies meant to maintain indigenous identities with regard to status and on an international level. Indigenous peoples’ land to land. Offers framework to understanding Taiwan indigenous peoples’ experiences under modernization. S/U or letter grading.

M248. Anthropology and History of Mediterranean. (4) (Same as History M248 and Near Eastern Languages M248G.) Seminar, three hours. Introduction to historical and anthropological writings about Mediterranean. Draws on variety of classic and contemporary theory, histories, and ethnographies about Mediterranean Sea. Topics include geographical and imaginary boundaries, Mediterranean honor/shame concepts, colonial and post-colonial Mediterranean, Levantine Mediterranean, French Mediterranean, Jewish Mediterranean, colonial and post-colonial sea and migrants and mobilities. Focus on critical history of anthropological study of Mediterranean and scholarly literature that emphasizes southern shores of Mediterranean. Letter grading.


Linguistic Anthropology

252A. Ethnography of Communication. (4) Seminar, three hours. Designed for graduate students. Seminar devoted to examining representative scholarship from fields of linguistic anthropology and communication. Particular attention to theoretical developments including an ethnography of communication to such disciplines as anthropology, linguistics, and sociology. Topical focus include style and strategy, speech variation, varieties of noncausal speech genres, languages and ethnicity, and non-verbal communication behavior. S/U or letter grading.

252B. Ethnographic Methods in Language, Interaction, and Communication. (4) Seminar, three hours. Requires course 252A or Sociology 244A. Ethnographic approaches to recording and analyzing communicative events and practices in their sociocultural context, involving student-initiated fieldwork in community setting. Emphasis on hands-on activities within theoretical frameworks that consider language as social and cultural practices and on use of research skills related to collecting socially and culturally meaningful data. Letter grading.

253. Language Ideologies: Political Economy of Language Beliefs and Practices. (4) Lecture, three hours. Language ideological research problematizes fundamental assumptions about speakers’ use of language and communicative practices: (1) speakers’ awareness of these structures and processes and (2) relationship of this consciousness to speakers’ political economy, social position and to actual communicative conduct. S/U or letter grading.

254. Discourse Laboratory. (2, Seminar, two hours. Interdisciplinary discussion group around in-progress research projects, talks, published articles, and methodological and professional development in linguistic anthropology. S/U grading.

M255. Native American Languages and Discourses of Indigeneity. (4) (Same as American Indian Studies M208.) Seminar, three hours. Preparation: prior coursework in American Indian studies. Close reading and discussion of books and articles on topics related to Native American languages and discourse of indigenous communities. Topics include governmental topics, multilingualism, indigenous language practices, language ideologies, policies and practices of publication and concealment, language revitalization, language and identity. Students learn principles of qualitative data analysis, storytelling and performance, community/academic collaboration, language as intellectual property, linguistic expressions of indigeneity, and cultural sovereignty. Offered to students preparing for fieldwork, with skills and awareness of these structures and processes and to actual fieldwork, with skills and awareness of these structures and processes. Letter grading.

M256. Language, Culture, and Education. (4) (Same as Education M286.) Seminar, three hours. Examination of ongoing movement to reclaim and reimage school curricula with Native American content. Students perform variety of roles in discussions, develop book reviews, grant proposals, critical essays, and write their theses and dissertations. S/U or letter grading.

257. Topics in Semantics and Pragmatics. (4) Seminar, four hours. Detailed examination of specialized topics in semantics and pragmatics. Topics vary from year to year and may include metaphor, theories of connectedness, topics of reference and denotation, honorific speech, evidence, reported speech, etc. May be repeated for credit with topic change. S/U or letter grading.

C257P. Language and Politics. (4) Lecture, three hours. Discussion of relations between language, migration, place, class, and more. For centuries of teaching and learning, communities have sought to push against ways nation-state schools have devalued communities, their lifeways, and their lives. Most recently, this movement is indebted to several decades of research, theory, and practice in asset or strength-based pedagogy tradition. Work on culturally sustaining pedagogy (CSP) has joined these decades and central to U.S. schools seeking to perpetuate and foster—to sustain—linguistic, literate, and cultural pluralism as part of schooling for positive social transformation and revitalization. S/U or letter grading.

258. Language Socialization. (4) Seminar, four hours. Exploration of process of socialization through language and socialization to use language across lifespan and across communities of practice within single society, and across different ethnic and socioeconomic groups. Ways in which verbal interaction between novices and experts is structured linguistically and culturally. S/U or letter grading.

259. Selected Topics in Social and Cultural Anthropology. (4) Seminar, three hours. Problems in relations of language, culture, and society. May be repeated for credit. S/U or letter grading.

Research Methods

282. Research Design in Cultural Anthropology. (4) Lecture, three hours. Primarily designed for graduate students preparing for fieldwork. Unique position of anthropological research as resulting problems for scientific research design. Review of typical research problems and appropriate methods. Students prepare their own research designs and present them for class discussion. Student proposals.

283. Proposal Writing Seminar. (4) Seminar, three hours. Introduction to art of proposal writing. Focus on proposal for anthropological fieldwork, with skills being useful across disciplines and proposal genres. Structured as writing workshop, with weekly writing assignments and group critique. S/U or letter grading.


M285A. Quantitative Research: Design and Data Collection. (4) Formerly numbered M285A. (Same as Community Health Sciences M216B.) Lecture, three hours. Hands-on approach to qualitative data analysis. Students learn how to conduct all steps of thematic analysis, including developing codes and coding schemes, analytic techniques to compare and categorize data, assessing validity and reliability of data, as well as summarizing and presenting qualitative findings. Lectures, discussion of readings, and practical exercises by hand and with Deductor/compass software. S/U or letter grading.

287R. Relational Models Theory and Research Design. (4) Seminar, three hours. Relational models theory (RMT) posits that people in all cultures use combinations of just four relational models (RMs) to organize most aspects of most social coordination: communal sharing, authority ranking, equality matching, and market pricing. Exploration of how people use these RMs to motivate, generate, constitute, coordinate, judge, and sanction social interaction. RMT aims to account for what is universal and what varies across cultures, positing necessity for cultural components that specify how and with whom each relational model operates. Readings may include RMT research in social anthropology, archaeology, social theory, semiotics, linguistics, developmental, cognitive, social, political, moral, clinical, and cultural psychology, neuroscience, evolution, sociology, family studies, philosophy, management, marketing, and consumer psychology, economics, justice, public health, public policy, and international development. S/U or letter grading.

Specialized Studies

294. Human Complex Systems Forum. (1) Seminar, 90 minutes every other week. Interdisciplinary seminar series to provide students with exposure to current research in understanding nature of human societies from complexity and multig但是如果的区域。 可以被用于信 S/U or letter grading.


299. Selected Topics in Anthropology. (4) Seminar, three hours. Designed for graduate students. Study of selected topics of anthropological interest. Consult Schedule of Classes for topics and instructors. May be repeated for credit. S/U or letter grading.

Special Studies

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel. Provides students with practical experience of teaching anthropology and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U or letter grading.
Applied Linguistics

Overview

The UCLA Academic Senate approved the disestablishment of the Department of Applied Linguistics; the discontinuance of the graduate degree and certificate programs. Language Teaching minor, and African Languages BA; and the transfer of the Applied Linguistics BA to the Department of Linguistics effective winter quarter 2015. Students currently enrolled in any of the programs may complete them under current requirements.

Applied Linguistics

Lower-Division Course

30W. Language and Social Interaction. (5) Lecture, three hours; discussion, two hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Not open for credit to students with credit for course 30. Exploration of range of topics related to study of language and social interaction in both mundane and professional settings, particularly how language affects social lives and how social organization affects use of language. Topics include different approaches to study of language in social interaction (theories and research methodologies), issues regarding language and social identity (such as socioeconomic status, race, gender, and situational identity), and issues concerning language and culture (such as cross-cultural misunderstanding and language socialization). Satisfies Writing II requirement. Letter grading.

Graduate Courses

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance of supervisor and regular faculty members. Required of all new teaching assistants. Workshop/tutorial, held on demand. Preparation: apprentice participation in 371. May be repeated for credit. S/U grading.

596. Directed Individual Study. (2 to 8) Tutorial, to be arranged. Limited to MA and PhD students. Independent study in one area of applied linguistics. May not be applied toward MA course requirements. Up to 8 units may be applied toward PhD course requirements. May be repeated for credit. S/U or letter grading.

597. Preparation for PhD Qualifying Examinations. (2 to 12) Tutorial, to be arranged. Preparation: consent of student and graduate chair, and graduate dean. and host campus instructor, department chair, and graduate dean. Used to record enrollment of UCLAs courses in courses taken under cooperative arrangements with USC. S/U grading.


Archeology

Interdepartmental Program

College of Letters and Science

Overview

The Archaeology Interdepartmental Program brings together interests and specialties represented by those departments offering courses in archaeology, as well as others offering courses relevant to archaeology.

Mission

The primary purpose of the program is to train scholars in archaeology for university-level teaching and research and other professional aims. Its resources are intended for those archaeology students whose academic goals cannot be met within any single department and who, consequently, require an individually designed plan of study combining academic preparation in two or more departments. Applications are especially encouraged from students whose interests may form bridges with disciplines and departments not offering archaeology (e.g., botany, chemistry, geology, mathematics, statistics, and zoology). There are opportunities for participation in a variety of field, laboratory, and computer studies.

Graduate Major

Archaeology MA, CPhil, PhD

The program does not encourage applicants who seek only an MA degree.

Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.
Archeology
Lower-Division Courses

19. Flat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of direct interest to UCLA. P/NP grading.

30. Science in Archaeology. (4) Lecture, three hours; discussion, one hour. Archaeology is rapidly developing due to ongoing introduction of new hardware, software, and information dissemination technology. It is multidisciplinary in nature, combining its own research methods and technologies with elements from geology, history, ethnography, geography, material science, statistics, biology, biochemistry, medicine, and other present-day disciplines. New scholarly insights, but also to provide integrated instruction in science, technology, engineering, and mathematics (STEM) skills. Use of archaeological data as a paradigm in STEM education. Instant practical application of mathematics during surveying, geology during ceramic analysis or geophysical research, biochemistry during archaeological residue analysis, or biology during zooarchaeological or palaeoethnobotanical research offers point of departure for instructors as well as motivation to students. P/NP or letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

Upper-Division Courses

C110. Archaeological Materials Identification and Characterization. (4) Lecture, one hour; laboratory, two hours. Laboratory-oriented introduction for archaeologists to identification and quantitative description of solid materials, especially metals, ceramics, and other inorganic and some organic substances. Concurrently scheduled with course C210. P/NP or letter grading.

M112. Archaeology and Art of Christian and Islamic Egypt. (4) Same as Art History M119D, Islamic Studies M112, and Middle Eastern Studies M112.) Lecture, three hours. Culture of Egypt transformed gradually after Muslim conquest in mid-7th century CE. According to material evidence such as ceramics, textiles, architectural forms, and building techniques, it is further divided into periods; the pre-Islamic and Christian Egypt from early Islamic Egypt. Although population may have become largely Muslim by 10th century CE in Egypt, culture remains Egyptian in many senses. The pre-Islamic period, which is the focus of this class, begins in 6th to 14th century and contains significant period of history. Study of archaeological remains and the current status of Egypt from 6th to 19th century, charting changes and continuities in material culture and shifts in human geography and land use. P/NP or letter grading.

C120. Special Topics in Archaeology. (2 or 4) Lecture, three hours. Designed for juniors/seniors. Special topics on theoretical subjects in archaeology such as new strategies, regional synthesis, or current work by core program faculty or special visiting scholars. May be repeated for credit with topic change. Concurrently scheduled with course C220. Final project or paper required. 2-unit course has P/NP grading.

C159. Fieldwork in Archaeology. (2 to 12) Fieldwork, to be arranged. Participation in archaeological field excavations or museum research under supervision of staff archaeologists at UCLA. Minimum of one month of field time away from campus required. May be repeated for credit with consent of adviser. Concurrently scheduled with course C259. P/NP or letter grading.

C160. Ancient and Historic Metals: Corrosion, Technology, and Microstructure. (6) Seminar, four hours; laboratory, four hours. Overview of technology of ancient metals, aspects of extraction and alloying, corrosion that ancient metals undergo, and how this impacts their preservation. Exploration of knowledge and research work of last two decades that has substantially advanced understanding of processes of extraction, alloying, surface patination, metallic coatings, corrosion, and laboratory work in preparation and examination of metallic samples under microscope, as well as lectures on technology of metallic works of art. Discussion of phase and stability diagrams of systems and environments. Metallographic study samples represent Bronze Age Europe, Renaissance Europe, China from Warring States to Tang dynasty, Japanese swordmaking, Indian bronzes, Peruvian, Colombian, Costa Rican, and Panamanian copper and gold-copper alloys. Concurrently scheduled with course C260. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

C220. Special Topics in Archaeology. (2 or 4) Lecture, three hours. Special topics in subjects in archaeology such as new strategies, regional synthesis, or current work by core program faculty or special visiting scholars. May be repeated for credit with topic change. Concurrently scheduled with course C210. Final project or paper required if taken for 4 units (S/U or letter grading); 2-unit course has P/NP grading.

C259. Fieldwork in Archaeology. (2 to 12) Fieldwork, to be arranged. Participation in archaeological field excavations or museum research under supervision of staff archaeologists at UCLA. Minimum of one month of field time away from campus required. May be repeated for credit with consent of adviser. Concurrently scheduled with course C159. S/U or letter grading.

C265. Depositional History and Stratigraphic Analysis. (4) Same as Ancient Near East M265.) Lecture, two hours. Theoretical understanding of depositional processes (laws) which control the formation and stratigraphic procedures to be used in recovery of embedded cultural materials. Study of issues covered in laboratory with specific test cases from actual excavations and site reports. Coverage of theoretical implications of such disciplines as archaeology and pedology with help of specialists. S/U or letter grading.

C280. Ancient and Historic Metals: Corrosion, Technology, and Microstructure. (6) Seminar, four hours; laboratory, four hours. Overview of technology of ancient metals, aspects of extraction and alloying, corrosion that ancient metals undergo, and how this impacts their preservation. Exploration of knowledge and research work of last two decades that has substantially advanced understanding of processes of extraction, alloying, surface patination, metallic coatings, corrosion, and microstructure. Laboratory work in preparation and examination of metallic samples under microscope, as well as lectures on technology of metallic works of art. Discussion of phase and stability diagrams of systems and environments. Metallographic study samples represent Bronze Age Europe, Renaissance Europe, China from Warring States to Tang dynasty, Japanese swordmaking, Indian bronzes, Peruvian, Colombian, Costa Rican, and Panamanian copper and gold-copper alloys. Concurrently scheduled with course C259. Letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum at UCLA. May be repeated for credit. S/U or letter grading.

C280A. Selected Laboratory Topics in Archaeology. (4) Lecture, two hours; laboratory, two hours. Designed for graduate students in archaeology or in other departments. Specialized analysis of particular classes of cultural remains. Topics may be chosen as general interest or as part of other courses. P/NP or letter grading.
The Department of Architecture and Urban Design at UCLA offers a Bachelor of Arts (BA) degree in Architectural Studies and four graduate degree programs tailored to the needs of different groups of students: Master of Architecture (MArch); Master of Arts (MA) and Doctor of Philosophy (PhD) in Architecture; and Master of Science (MS) in Architecture and Urban Design.

Accreditation
In the U.S. most state registration boards require a degree from an accredited professional degree program as a requisite for licensure. The National Architectural Accrediting Board (NAAB), the sole agency authorized to accredit U.S. professional degree programs in architecture, recognizes two types of degrees: Bachelor of Architecture and Master of Architecture. A program may be granted a five-year, three-year, or two-year term of accreditation, depending on its degree of conformance with established standards. Master’s degree programs may consist of a pre-professional undergraduate degree and a professional graduate degree which, when earned sequentially, comprise an accredited professional education. However, the pre-professional degree is not, by itself, recognized as an accredited degree.

Undergraduate Major
Architectural Studies BA
The BA in Architectural Studies is a two-year program with focus on the built environment. The curriculum visualizes architecture as a cultural, creative, and technical practice and a discipline with direct social impact. Within the context of a liberal arts education, a finely balanced set of architecture and urban design courses, ranging from the history and theory of design to contemporary building technologies, provides students with a diverse foundation of knowledge in the field of architecture and prepares them for graduate school and/or careers in a wide range of fields.

Learning Outcomes
The Architectural Studies major has the following learning outcomes:

- Demonstrated competence in representational techniques including physical and digital modeling, drawing, and analytical diagramming
- Use of representational techniques to document design concepts, organization, spatial order, and scale
- Ability to compile portfolio of original architectural and three-dimensional design proposals
- Familiarity with historical and contemporary precedents in the field
- Demonstrated written awareness of the historical, technological, and cultural significance of precedent works
- Familiarity with, and presentation and discussion of, concepts related to form, organization, and space making
- Delivery of oral and graphic presentations of design concepts and proposals
- Reception of and response to design criticism, and reflection of this response in revised design documentation, as an integral part of the design process

Entry to the Major
Admission
Students are admitted for fall quarter only. Admission is highly competitive, and only a limited number of students are admitted each year. UCLA students may apply for admission in fall quarter of their second year in residence, must have at least a 3.0 cumulative grade-point average, and are required to complete the preparation for the major courses, with grades of B or better, before applying for admission. Transfer students must have at least a 3.0 cumulative GPA and are expected to complete the preparation for the major courses during their first year in residence. All applicants must submit a statement of interest and a three- to six-page PDF of creative work. For more information, consult with the undergraduate adviser.

Requirements
Preparation for the Major

The Major
Required: Architecture and Urban Design 121, 122, 123, 131, 132, 133, 141, 142, 143.

Graduate Majors
Architecture MA, PhD
The MA and PhD degree programs offer opportunities to pursue research and scholarship in the field of architecture. Graduates typically pursue academic or applied research and consulting careers.

Requirements
Official, specific degree requirements are detailed in program requirements for UCLA.
graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Architectural and Urban Design MS

The Architecture and Urban Design MS is an advanced self-supporting professional degree program for students who already hold a first professional degree in architecture. The program offers opportunities for intensive concentration in a variety of areas of professional specialization.

Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Master of Architecture

MArch is a three-year first professional degree program accredited by the NAAB. It does not assume any prior background in architecture. Students who do have some prior architecture background (e.g., a four-year undergraduate degree) may also enter the program and may petition to waive certain required courses and substitute more advanced electives in their place. MArch graduates normally pursue professional careers in architectural practice.

Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Concurrent Degree Program

Concurrent degree programs allow students to reduce the number of courses required for two degrees, since some courses may apply to both degrees.

• Master of Architecture/Master of Urban and Regional Planning

Architecture and Urban Design

Lower-Division Courses

10A. Histories of Architecture and Urbanism I. (5) Lecture, three hours; discussion, one hour; outside study, 11 hours. Exploration of developments in global architecture and urbanism from prehistory to 1600 and critical reflection on terms such as building, architecture, city, history, and culture. Focus on world context, construction and technology, and history of architectural ideas. P/NP or letter grading.

10B. Histories of Architecture and Urbanism II. (5) Lecture, three hours; discussion, one hour; outside study, 11 hours. Survey of architectural and urban history from 1600 to present in global context. Exploration of buildings, cities, spaces, artifacts, landscapes, and ideas through their relation to geopolitical conditions and through their relation to theories of design. P/NP or letter grading.

19. Flat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

30. Introduction to Architectural Studies. (5) Lecture, three hours; studio, three hours; outside study, 11 hours. Exploration of role of built environment in social, cultural, and political life: how buildings are constructed, what they mean, effects they have on world, and ways that buildings and the environment shape private and public life. Focus on series of contemporary case studies for what each reveals about opportunities for new buildings, new neighborhoods, and new future built environments. Offered only as part of Teen Arch Studio.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, and other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course), individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

102. Introduction to Representation. (2) Studio, four hours; outside study, two hours. Limited to currently enrolled college/university students and graduates of colleges/universities. Introduction to techniques of spatial representation as they relate to architectural design. How to communicate using two- and three-dimensional drawing and modeling. Analog and digital techniques and opportunity afforded by moving between both. Analog techniques include orthographic and axonometric projection. Digital techniques focus on computer graphics fundamentals, including bit map and vector graphic imaging using Adobe suite and modeling using Rhinoceros. Offered in summer only. Letter grading.

103. Introduction to Architectural Design. (6) Studio, 18 hours. Limited to currently enrolled college/university students and graduates of colleges/universities. Introduction to basic architectural design principles and problem solving. How to control point, line, surface, and volume to shape spaces for human use. Visual analysis as tool for discussing and understanding organization. Techniques of repetition, variation, order, scale, and rhythm. Use of computer-aided design to uncover disciplinary issues within design problems and production of individual solutions to problems. Offered in summer only. Letter grading.

121. Studio I, II, III. (6) Studio, eight hours; outside study, 10 hours. Limited to Architectural Studies majors. Introduction to basic architectural design principles and problem solving: how to control point, line, surface, and volume to shape spaces for human use. Visual analysis as tool for discussing and understanding organization. Techniques of repetition, variation, order, scale, and rhythm. Use of computer-aided design to uncover disciplinary issues within design problems, as well as to produce individual solutions to those problems. Letter grading.


123. Studio III. (6) Studio, eight hours; outside study, 10 hours. Enforced requisites: courses 121, 122. Limited to Architectural Studies majors. Issues of disciplinary issues, techniques, and organizations of landscape and how those can influence design of building and site. Development of material and temporal characteristics of architecture relative to role those play in landscape. Introduction to issues of accessibility and egress as systems of movement. Structure as serial component that relates to site, construction, topography, climate, and accessibility, and their mutual interaction. Letter grading.

M125B. Digital Cultural Mapping Core Course B: Google Earth, Geographic Information Systems, Hypertext, and Telepresence. (5) Lecture, three hours; lab, two hours. Limited to 25A, 25B Laboratory, three hours; discussion, one hour. Enforced requisite: Ancient Near East 125A/B, Laboratory, three hours; fieldwork, one hour. Hands-on laboratory-based investigation of emerging digital mapping techniques. Offered only as part of Digital Cultural Mapping Project supported by W.M. Keck Foundation. Offered in summer only. P/NP or letter grading.

M125C. Digital Cultural Mapping Core Course C: Student Research. (4) Lecture, three hours. Limited to Ancient Near East M125C), Laboratory, three hours; fieldwork, one hour. Enforced requisite: course M125B or Ancient Near East M125B Participation in collaborative geographic information systems (GIS) research project in humanities or social sciences using skills learned in courses 125A and M125B. Gathering and input of datasets from real-world sources, creating visual representations of data through production of digital maps, and performing analysis of larger dataset to answer specific research questions. Final oral presentation required that details student work and provides critical analysis of source material and theoretical/methodological issues inherent to type of GIS used for investigation. Part of Digital Cultural Mapping Project supported by W.M. Keck Foundation. Offered in summer only. P/NP or letter grading.

CM130. Space and Place. (4) (Same as World Arts and Cultures CM130.) Lecture, three hours. Survey of array of spaces and places from cross-cultural or comparative perspective and with performance emphasis. Focus on role of architecture and built environments and their created environments. Emphasis on common, ordinary, anonymous, or vernacular nonbuilt and built environments, which are built and used by members of small-scale, traditional, and transitional communities around world. Concurrently scheduled with course CM230. P/NP or letter grading.

131. Issues in Contemporary Design. (5) Lecture, three hours; outside study, 12 hours. Limited to Architectural Studies majors. How global design culture
today operates as part of set of spatial, economic, political, and social discourses. From development of cities to new formal languages in architecture, consequences of fact that great percentage of our lives is spent in controlled designed environments, including role that research and interdisciplinarity play today in influencing design ideas and processes, as well as how design is influenced by technology and new urban conditions. Letter grading.

132. Histories of Housing and Domesticity: 19th Century to the Present. (5) Lecture, three hours; outside study, 12 hours. Limited to Architectural Studies majors or with consent of instructor. Investigation of relationship between architecture, political economy, and the environment through the medium of housing, from 19th-century philanthropy to cooperative, municipal, and national enterprise. Financial, including examples spanning two centuries, study connects politics, law, industry, and finance to better identify the role of architecture in the materialization of housing. Letter grading.

133. Modernism and Metropolis. (5) Lecture, three hours; outside study, 11 hours. Limited to Architectural Studies majors. Introduction to emergence of contemporary metropolises through serial of comparative urbanist lenses that begin in Los Angeles and extend to engage range of cities, including key examples from Asia to South America. Modern project can be seen in myriad forms across globe, so that city and suburb, tabula rasa, and contemporary city in complex landscape of aesthetic, political, spatial, economic, technological, and social issues. Letter grading.

140. Theory I: Projections. (5) Laboratory, four hours; outside study, 11 hours. Limited to Architectural Studies majors. Introduction to techniques of spatial representation as they relate to architectural design. How to communicate using two- and three-dimensional drawing. Analog and digital techniques and opportunities afforded by moving between both. Analog techniques include orthographic and axonometric projection. Digital techniques focus on computer-generated images, including bitmap and vector graphic imaging using Adobe suite and modeling using Rhinoceros. Letter grading.

142. Theory II: Building Materials and Methods. (5) Laboratory, four hours; outside study, 11 hours. Limited to Architectural Studies majors. Introduction to construction systems and materials in relation to design, such as framed, bearing wall, or hybrid systems. Graphic conventions and organization of construction and framing. Letter grading.

143. Theory III: Digital Technology. (5) Laboratory, four hours; outside study, 11 hours. Limited to Architectural Studies majors. Overview of three-dimensional computer-aided visualization concepts, teaching applications of AutoCAD and Maya and their use relative to process of design and visual communication. Basic representation methods and tools and introduction to additional concepts required to dynamically interact with computer and to explore and understand communicative capacities of different methods of representation. Explanation of bitmap versus vector graphics, typography basics, and color output and integration for print and Web, and introduction to three-dimensional digital modeling and fabrication. Letter grading.

CM153. Introduction to Sustainable Architecture and Community Planning. (4) (Same as Environment M153.) Lecture, three hours. Relationship of built environment to natural environment through whole systems approach, with focus on sustainable design of buildings and their created environments. Emphasis on energy efficiency, renewable energy, and appropriate use of resources, including materials, water, and land. Concurrently scheduled with course CM247A. Letter grading.

C188CS. Special Topics in Architecture and Urban Design—Critical Studies. (4) Lecture, three hours. Limited to seniors in good academic standing. Special topics in critical studies in architectural culture. May be repeated for credit; concurrently scheduled with course C289CS. Letter grading.

188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors College 101E. Limited to junior/senior USIE facilitators. Individual study of faculty mentor with scheduled meetings with faculty mentor to discuss selected USIE semiotic topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SB. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: course 188SA. Enforced corequisite: Honors College 101E. Limited to junior/senior USIE facilitators. Individual study of faculty mentor with scheduled meetings with faculty mentor to finalize course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced corequisite: course 188SB. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE 88S course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

C188T. Special Topics in Architecture and Urban Design—Technology. (4) Lecture, three hours. Limited to seniors in good academic standing. Special topics in technological exploration may be repeated for credit. Concurrently scheduled with course C289T. Letter grading.

189. Advanced Honors Seminars. (1) Seminar. three hours. Limited to juniors/seniors. Directed independent study under guidance of faculty mentor. Culminating paper or project required. Honors content noted on transcript. P/NP or letter grading.


195. Directed Research or Senior Project in Architecture and Urban Design. (2 to 4) Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

M201. Theories of Architecture. (4) Same as Urban Planning M201.) Lecture, three hours. Exploration of conceptual and historical structures that shape current issues in architectural theory. Readings in primary texts serve as framework for understanding nature of speculative inquiry in architectural context. Letter grading.

220. Introduction to Computers. (2) Lecture, 90 minutes; laboratory, 90 minutes; outside study, three hours. Introduction to fundamentals and theoretical aspects of computer-aided architecture design microcomputer skills. Applications selected are commonly found in professional offices. Two- and three-dimensional representation (i.e., painting, drafting, multimedia, hypermedia, and modeling). Letter grading.

221. Architectural Mediation I. (2) Lecture, two hours, laboratory, 90 minutes;outside study, three hours. Introduction to computational and theoretical discourses of digital modeling/drawing interfaces. Digital applications explored are broadly utilized in professional practices across all scales. Two- and three-dimensional output (i.e., drawing, modeling, multimedia, laser-cutting, computer numerical control milling). Letter grading.

222. Architectural Mediation II. (2) Lecture, two hours, laboratory, 90 minutes; outside study, three hours. Exploration of visual concepts and techniques in architectural image-making in context of its discursive histories and contemporary trajectories. Two-dimensional output (i.e., collaged/montaged/drawn/rendered images). Letter grading.

223. Architectural Mediation III. (2) Lecture, two hours, laboratory, 90 minutes; outside study, three hours. Exploration of advanced digital interfaces such as parametric software, and coding towards exploration of interactive mapping, analysis, time/behavior-based simulations, and fabrications. Two- and three-dimensional output (i.e., animation, animation stills, multimedia, 3D printing, computer numerical control (CNC) milling). Letter grading.

226C. Computer Visualization. (4) Lecture, three hours. Designed for graduate students. Concept and techniques of computer visualization of artifacts, including realistic rendering and animation. Letter grading.

227D. Design and Building Models. (4) Lecture, three hours. Review of range of information and knowledge potentially used in design information. Development of knowledge used in range of how, for it can be identified, analyzed, and structured. Letter grading.

CM230. Space and Place. (4) (Same as World Arts and Cultures CM230.) Lecture, three hours. Survey of array of spaces and places from cross-cultural or comparative perspective, and with performance emphasis, with focus on mutual interaction of human beings and their created environments. Emphasis on common, ordinary, anonymous, or vernacular nonbuilt environments, used by and identified with members of small-scale, traditional, and transitional communities around world. Concurrently scheduled with course CM130. S/U or letter grading.

CM247A. Introduction to Sustainable Architecture and Community Planning. (4) (Same as Urban Planning M292.) Lecture, three hours. Introduction of basic knowledge of elements and methods of urban design. Multidisciplinary approach leading to understanding of urban, social, political, and technological framework of urban systems and its dynamic interrelations. S/U or letter grading.

M271. Elements of Urban Design. (4) Same as Urban Planning M292.) Lecture, three hours. Introduction of basic knowledge of elements and methods of urban design. Multidisciplinary approach leading to understanding of urban, social, political, and technological framework of urban systems and its dynamic interrelations. S/U or letter grading.

M272. Introduction to Market-Rate Real Estate Development and Finance. (4) (Same as Urban Planning M220A.) Lecture, two hours; workshop, two hours; outside study, eight hours. Requisite: Urban Planning M220A. Introduction to real estate development process specifically geared to students in planning, architecture, and urban design. Financial decision model, market studies, designs, loan packages, development plan, and feasibility studies. Lectures and projects integrate development process with proposed design solutions that are interactively modified to meet economic feasibility tests. S/U or letter grading.

286. Roman Architecture and Urbanism. (4) Lecture, three hours. Examination of architectural and urban developments from 15th to 17th century. Primary focus on Italian peninsula, specifically to entire Mediterranean basin. Analysis of individual structures, cities, and landscape designs to reveal changing cultural and theoretical values, as well as specific aesthetic and biographical context. P/NP or letter grading.

288. Renaissance Architecture and Urbanism. (4) Lecture, three hours. Examination of architectural developments from 15th to 17th century. Primary focus on Italian peninsula, specifically to entire Mediterranean basin. Analysis of individual structures, cities, and landscape designs to reveal changing cultural and theoretical values, as well as specific aesthetic and biographical context. P/NP or letter grading.
289. Special Topics in Architecture and Urban Design. (2 to 4) Lecture; two hours, discussion; two hours. Selected academic topics initiated by students, student teams, or faculty and directed by faculty member. May be repeated for credit. S/U or letter grading.

C289CS. Special Topics in Architecture and Urban Design—Critical Studies. (4) Lecture, three hours. Special topics in critical studies in architectural culture. May be repeated for credit. Concurrently scheduled with course C189CS. Letter grading.

C289T. Special Topics in Architecture and Urban Design—Technology. (4) Lecture, three hours. Special topics in architecture and urban design. May be repeated for credit. Concurrently scheduled with course C189T. Letter grading.


M293. Politics, Ideology, and Design. (4) (Same as Urban Planning M293.) Lecture, three hours. Exploration of cultural and political context of architecture and planning work. Examination of theory and practice from a variety of perspectives applied to set of varied physical environments and to set of current spatialized concepts. Consideration of theoretical propositions that are shaping present urban and architectural debate and concrete case studies where politics and ideology shape design process. Letter grading.

294A-294B. Environmental Psychology. (4-4) Lecture, three hours. Introduction to models, concepts, and theories concerning impact of environment on human behavior, perception, and thought. Review of research results concerning space perception, cognitive mapping, preferences and attitudes toward environment, effects of crowding and stress, personal space and territoriality. S/U or letter grading.

M295. Introduction to Urban Humanities. (4) (Same as Urban Planning M295.) Seminar, six hours; studio, six hours. Core introduction to urban humanities. Analytical methods of human behavior, with speculative and projective methods of architectural and urban design to better understand contemporary state of human environment. Focus on Los Angeles, with concepts seminar, methods laboratory, studios, projects studio, and site visit components. Offered in summer only. S/U or letter grading.

296. Proseminar: Critical Studies in Architectural Culture. (4) Seminar, three hours. Orientation for PhD students to tradition of architectural theory, scholarship, and research to current research directions and questions, through intensive reading and critical discussion. Letter grading.

375. Teaching Apprenticeship Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

401. Advanced Topics Studio. (6) Studio, 12 hours; outside study, six hours. Preparation: satisfactory completion of advanced-level studios (courses 412, 413, 414, or MArch II student. Students may choose (through lottery) from several different advanced studio projects for MArch II students. Exploration of various techniques for determination of program content, basic conditions, resources, and constraints; identification of solution types for given situations. S/U or letter grading.

402. Final Advanced Topics Studio. (6) Studio, 12 hours; outside study, six hours. Preparation: satisfactory completion of intermediate- and advanced-level studios for MArch I students; satisfactory completion of advanced-level studios and fourth-term standing for MArch II students. Students may choose (through lottery) from several different advanced studio projects for MArch II students. Preparation: satisfactory completion of intermediate- and advanced-level studios for MArch I students; satisfactory completion of advanced-level studios and fourth-term standing for MArch II students. May be repeated for credit. S/U or letter grading.

403A-403B. Environmental Research Studios. (2-2-6) For courses 403A, 403B: seminar, three hours; outside study, three hours; for course 403C: studio, 12 hours; outside study, six hours. Preparation: satisfactory completion of intermediate- and advanced-level studios (courses 412, 413, 414, or MArch II student. Course 403A is requisite to 403B, which is requisite to 403C. In-depth research phase (courses 403A, 403B) and advanced studio project (course 403C). Preparation: satisfactory completion of intermediate- and advanced-level studios for MArch I students. Selection of different special topics in architecture and urban design. In Progress (403A, 403B) and letter (403C) grading.

M404. Joint Planning/Architecture Studio. (4) (Same as Urban Planning M404.) Lecture, one hour; discussion, one hour; studio, four hours. Opportunity to work on joint planning/architecture project for client. Outside speakers: field trips. Examples of past projects include design of an alternative to the Cahuenga New American House for nontraditional households; Pico-Aliso Housing, Boyle Heights; working with resident leaders at Los Angeles City Public housing developments. S/U or letter grading.

411. Introductory Design Studio. (6) Studio, 12 hours; outside study, six hours. Introduction to sketching, drawing, perspectives, CAD. Architectural composition is initially studied in terms of its separate elements. After each exercise, students are expected to develop a cumulative exercise that allows for experimentation of its intrinsic possibilities, students undertake series of closely controlled exercises, then design small buildings. Letter grading.

412. Building Design Studio. (6) Studio, 12 hours; outside study, six hours. Preparation: course 411. Concentration on basic skills, leading to projects exploring architectural program in relation to design process and, particularly, implications of program on architectural forms and concepts. In second phase, introduction of structural elements to fulfill program requirements and to support and further develop structural forms and concepts. Letter grading.

413. Building Design with Landscape Studio. (6) Studio, 12 hours; outside study, six hours. Preparation: course 412. Introduction to theoretical and technical issues such as site design, landscape design, building typology, building design and site planning in relation to water, landforms, and plants in natural light, heat, and ventilation. Letter grading.

414. Major Building Design Studio. (6) Studio, 12 hours; outside study, six hours. Preparation: course 413. Designed for second-year graduate students. Introduction to issues such as programming and program manipulation, site planning, urban design, and integration of technical systems and architectural expression. Emphasis either on treatment in breadth of large-scale projects or exploration in depth and detail of smaller-scale projects. Students learn to integrate structure and environmental control and to present their ideas in graphic or model form. Letter grading.

415. Comprehensive Studio. (6) Studio, 12 hours; outside study, six hours. Preparation: course 414. Culmination of core sequence (courses 411 through 414), with focus on development phase of project. Technical considerations such as lighting, material innovation, sustainability, construction documents, and building envelope to be considered critical to generation of architectural form, integrated in design of single building project. Letter grading.


436. Introduction to Building Construction. (2) Laboratory, two hours; outside study, four hours. Introduction to construction techniques. Study of physical principles and methods of structural architecture through series of exercises and field trips. Letter grading.

437. Building Construction. (4) Laboratory, four hours; outside study, eight hours. Principles of structure and enclosure with focus on structural materials. Exploration of building elements for formal and functional properties. In addition, design development of project in previous studio may be developed in detail with integration of range of technical systems. Letter grading.


489. Reading: Architecture—Theory and Criticism. (2) Seminar, three hours. Offers guidance and support to first-time teaching assistants (TAs) in Department of Architecture and Urban Design. Covers topics which include teaching philosophies, teaching methodologies, assessment/evaluation/grading practices, and professional development specific to academic professions in the field of architecture. Reading and assignment-based learning. Case studies of teaching principles and provide methods with which to design course syllabi and evaluate/gather resources for course content. S/U grading.

496. Special Projects in Architecture. (2 to 8) Tutorial, to be arranged. Projects initiated either by individual students or student teams and directed by faculty member. May be repeated for credit. S/U or letter grading.

498. Special Projects in Urban Design. (2 to 8) Tutorial, to be arranged. Projects initiated either by individual students or student teams and directed by faculty member. May be repeated for credit. S/U or letter grading.

499. Comprehensive Examination Seminar. (4) Seminar, three hours; outside study, nine hours. Seminar intended to begin process of developing independent research proposal with related research and documentation that moves toward production of final document or book for each project. S/U grading.
ART
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Hirsch Perlman, BA
Cauleen Smith, MFA
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Professors Emeriti
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Raymond B. Brown, MA
Barbara Drucker, MFA
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Roger R. Herman, MFA
Mary Kelly, MA
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Paul D. McCarthy, MFA
Lari G. Pittman, MFA
Charles R. Ray, MFA
Nancy J. Rubins, MFA
Adrian A. Saxe, BFA
James Welling, MFA

Associate Professors
Candice C. Lin, MFA
Anna M. Sew Hoy, MFA
Rodrigo A. Valenzuela, MFA

Assistant Professors
Vishal Jugdeo, MFA
Cosmo D. Whyte, MFA

Overview
The Department of Art offers professional art training with an emphasis on interdisciplinary experimentation, equity, and inclusion in art. The core studio curriculum is supported by courses in art history, theory, and criticism, and empowers students to reshape their worlds through critical inquiry and transformative creativity. Student are exposed to a broad range of approaches to making and interpreting art, as well as diverse perspectives on the role of art and artists in society. Bachelor of Arts (BA) and Master of Fine Arts (MFA) areas of study include ceramics, interdisciplinary studio, new genres, painting and drawing, photography, and sculpture. Students are encouraged to work intensively within and across these areas of study to find their own voices and craft their own practices. Art majors have access to departmental labs in each area of study as well as a digital studio. Additionally, the Hammer Museum and the Fowler Museum at UCLA are among the many arts resources available to students, both on campus and in the Los Angeles community. The Art Department reserves the right to use documentation and reproductions of student art work from studio courses, student exhibitions, and other records of creative work in publications including, but not limited to, the undergraduate and graduate brochures and publications, department and school websites, social media, and presentations and events related to student recruitment and outreach.

Undergraduate Major
Art BA
Capstone Major
The Art major is a designated capstone major. As part of the upper-division advanced studio requirements, all undergraduate students are required to complete a senior studio course that emphasizes analysis and criticism of individual creative work and ideas. Students develop and present a body of creative work in which they exhibit familiarity with and competence in a range of techniques and media, and a level of proficiency in utilizing particular media appropriate to advanced-level studio projects. Graduates are expected to demonstrate familiarity with historical precedents for and issues in contemporary art, to understand terms and concepts relevant to contemporary art discourse, and to have the ability to effectively articulate analysis of works of art to participate in a studio critique.

Learning Outcomes
The Art major has the following learning outcomes:
- Familiarity with and competency in multiple techniques and media, and a level of proficiency utilizing particular media appropriate to advanced studio projects
- Development of a body of original artwork
- Familiarity with global historical precedents for, and issues in, contemporary art
- Understanding of terms and concepts relevant to contemporary art discourse
- Ability to effectively analyze works of art through studio critique

Requirements
Preparation for the Major

The Major
Required: A minimum of nine upper-division courses, including Art 132, six courses from at least four of the following studio areas of which at least one must be designated with an A: 130 or 130A, 133 or 133A, 137 or 137A, 140, 145 or 145A, 147 or 147A, 148 or 148A, 149 or 149A, one course from Art History M110A through 185, one capstone senior studio course (Art 150), and 8 units of art electives.

Policies
The Major
Each course applied toward major requirements must be taken for a letter grade, with the exception of Art 190, 193, and 195, which are offered only on a Passed/Not Passed grading basis. Of those, no more than 4 units total may be applied toward the upper-division art elective requirement.

Graduate Major
Art MFA
The MFA curriculum fosters the development of a sustained artistic practice through exploration, experimentation, and intensive studio work and study. Opened in Fall 2019, the UCLA Margo Leavin Graduate Art Studios provide individual and communal work spaces for MFA art students with a flexible design that considers the nature of contemporary artistic practice. The six areas of study—ceramics, interdisciplinary studio, new genres, painting and drawing, photography, and sculpture—are supplemented by contemporary critical theory seminars. Students are encouraged to work across areas of study within the department.

Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Additional guidelines are outlined on the Art Department website.

Art
Lower-Division Courses
1A. Drawing. (4) Studio, eight hours; five hours arranged. Course in basic drawing skills intended as preparation for work in variety of media. P/NP or letter grading.
1B. Sculpture. (4) Studio, eight hours; five hours arranged. Introduction to concepts and forms of contemporary sculpture to become familiar with tools and
material to enable students to visually manifest their individual ideas. Presentation of work of contemporary artists. P/NP or letter grading.

11A. Painting. (4) Studio, eight hours; five hours arranged. Basics of painting; introduction to technical procedures, tools, and materials. Discussion of fundamental conceptual and formal concerns. P/NP or letter grading.

11B. Photography. (4) Studio, eight hours; five hours arranged. Introduction to photography, with emphasis on individual projects. Varied approaches, processes, and applications of photographic medium within context of art, supported by studies in theory, aesthetics, and history. P/NP or letter grading.

11C. Printmaking. (4) Studio, eight hours; five hours arranged. Introductory survey of various technical and conceptual concerns in variety of printmaking media as preparation for more focused study in particular medium of etching, drypoint, pochoir, or letterpress. P/NP or letter grading.

11D. New Genres. (4) Studio, eight hours; five hours arranged. Introduction to projects in installation, performance, video, film, and other nontraditional media and processes. P/NP or letter grading.

11E. Ceramics. (4) Studio, eight hours; five hours arranged. Introduction to ceramic materials and processes, with emphasis on personal and cultural expression in ceramic media. Discussion of ceramics in contemporary art practice and social history of ceramic art. Letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

20. Production. (2) Studio, four hours. Limited to Art majors. Instruction in production techniques and processes, including basics of recording still images, moving images, and sound. Discussion of professional setups and standard practices as well as alternatives. Review of use of tools, software, and output Modalities. P/NP grading.

21A. Production: Photographic Print. (2) Studio, four hours. Requisite: course 11B. Limited to Art majors. Not open for credit to students with credit for course 20. Moving image and sound production and post-production techniques, tools, and processes, including instruction in basics of shooting, editing, and output Modalities. P/NP grading.

21B. Production: Moving Image and Sound. (2) Studio, four hours. Limited to Art majors. Not open for credit to students with credit for course 20. Moving image and sound production and post-production techniques, tools, and processes, including instruction in basics of shooting, editing, and output Modalities. P/NP grading.

31A. Rise of Modernism in Global Context. (5) Lecture, three hours; discussion, one hour; field trips, three hours. Examination of global forces underlying development of modernist thought on art and society from mid-19th through early-20th centuries. Exploration of development, theory, and practice of modernism in context of colonialism and industrialization. Letter grading.

31B. Global Modernism. (5) Lecture, three hours; discussion, one hour; field trips, three hours. Art majors should consult Undergraduate Research Center. P/NP or letter grading. Emphasis to be selected by faculty members or more of following media: installation, performance, video, film, other nontraditional media and processes. May be repeated for maximum of 20 units. Letter grading.

31C. Modernism and Its Discontents. (5) Lecture, three hours; discussion, one hour; field trips, three hours. Art majors should consult Undergraduate Research Center. P/NP or letter grading. Emphasis to be selected by faculty members or more of following media: installation, performance, video, film, other nontraditional media and processes. May be repeated for maximum of 20 units. Letter grading.

31D. Advanced New Genres: Topics in Anti-Racism, Equity, Diversity, and Inclusion. (5) Studio, eight hours; seven hours arranged. Requisite: course 11D. Variables to be selected to support students’ technical, expressive, and conceptual tools to understand and explore anti-racism, equity, diversity, and inclusion. Combination of courses 133 and 134A may be repeated for maximum of 20 units. Letter grading.

31E. Advanced New Genres. (5) Studio, eight hours; seven hours arranged. Requisite: course 11D. Variables to be selected to support students’ technical, expressive, and conceptual tools to understand and explore anti-racism, equity, diversity, and inclusion. Combination of courses 133 and 134A may be repeated for maximum of 20 units. Letter grading.

31F. Advanced Sculpture: Topics in Anti-Racism, Equity, Diversity, and Inclusion. (5) Studio, eight hours; seven hours arranged. Requisite: course 11B. Variables to be selected to support students’ technical, expressive, and conceptual tools to understand and explore anti-racism, equity, diversity, and inclusion. Combination of courses 133 and 134A may be repeated for maximum of 20 units. Letter grading.

31G. Advanced Sculpture: Topics in Anti-Racism, Equity, Diversity, and Inclusion. (5) Studio, eight hours; seven hours arranged. Requisite: course 11B. Variables to be selected to support students’ technical, expressive, and conceptual tools to understand and explore anti-racism, equity, diversity, and inclusion. Combination of courses 133 and 134A may be repeated for maximum of 20 units. Letter grading.

31H. Advanced Sculpture: Topics in Anti-Racism, Equity, Diversity, and Inclusion. (5) Studio, eight hours; seven hours arranged. Requisite: course 11B. Variables to be selected to support students’ technical, expressive, and conceptual tools to understand and explore anti-racism, equity, diversity, and inclusion. Combination of courses 133 and 134A may be repeated for maximum of 20 units. Letter grading.

31I. Advanced Sculpture: Topics in Anti-Racism, Equity, Diversity, and Inclusion. (5) Studio, eight hours; seven hours arranged. Requisite: course 11B. Variables to be selected to support students’ technical, expressive, and conceptual tools to understand and explore anti-racism, equity, diversity, and inclusion. Combination of courses 133 and 134A may be repeated for maximum of 20 units. Letter grading.
through development of large-scale collaborative digitally created image and/or painting for placement in community. Studies research, design, and work with community participants. Continuation of project through states of production to full scale and community approval. P/NP or letter grading.

M186C. Beyond Mexican Mural: Advanced Muralism and Community Development. (4) (Same as Chicana/o and Central American Studies M186B and World Arts and Cultures M125B.) Seminar/lecture, four hours. Requisites: courses M186A, M186AL. Corequisite: course M186BL. Continuation of investigation of muralism as method of community education, development, and empowerment. Exploration of issues through development of large-scale collaborative digitally created image and/or painting for placement in community. Students research, design, and work with community participants. Continuation of project through installation, documentation, and dedication, with work on more advanced independent projects. P/NP or letter grading.

C187. Contemporary Art Collections in Los Angeles. (2) Seminar, three hours. Limited to junior/senior majors. Exploration of critical issues regarding concept of collections and collecting. Visits to institutions and collections and discussion of vision, goals, and scope of collections, as well as individual works. Concurrently scheduled with course C287. Letter grading.

188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus in collaboration with faculty mentor required. May not be repeated. Letter grading.


188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced requisite: course 188SB. Limited to junior/senior USIE facilitators. Individual and project in regularly scheduled meetings with faculty mentor while facilitating USIE 88S course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, and other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

190. Studio/Research Colloquia in Art. (1) Seminar, three hours. Corequisite: course 197 or 198. Limited to juniors/seniors. Designed to bring together students undertaking supervised tutorial studio projects or research seminar setting or for more faculty members to discuss their own work or related work in discipline. Led by one supervising faculty member. May be repeated for maximum of 4 units. P/NP grading.

193. Journal Club Seminars: Current Topics in Art. (1) Seminar, three hours. Limited to junior/senior Art majors. Discussion of selected current exhibitions, visiting artist lectures, screenings, and readings in field. May be repeated for credit. P/NP grading.

Graduate Courses

271. Graduate Painting. (2 to 8) Studio, eight hours. Study in painting and associated media. May be repeated for credit with consent of adviser. Letter grading.

272. Graduate Printmaking. (2 to 8) Studio, eight hours. Studies in traditional and experimental printmaking. Selected studies in intaglio, lithography, woodcut, silk screen, photo printing, and mixed media. May be repeated for credit with consent of adviser. Letter grading.

273. Graduate Sculpture. (2 to 8) Studio, eight hours. Studies in sculpture with specific attention to ongoing nature, specificity, and approach to each student's individual discipline. Individual contract and consultation. May be repeated for credit with consent of adviser. Letter grading.

274. Graduate Photography. (2 to 8) Studio, eight hours. Study concentrating on development of individual students' artwork. Studio emphasis with adjacent theories in theoretical and critical analysis. Specific attention to original, expressive, social, and humanistic values. May be repeated for credit with consent of adviser. Letter grading.

### Undergraduate Major

#### Art History BA

The Art History major is a designated capstone program. Students have options for completing a senior honors thesis, a directed independent study, an advanced undergraduate seminar, a museum studies internship, a research assistantship, or a faculty-approved upper-division course that includes additional coursework culminating in the completion of a capstone paper. Through their capstone work, students are expected to conceive and execute a research or creative project; identify and evaluate documentation relevant to the discipline; develop an enhanced capacity for writing and research, critical and analytical thinking, and competent familiarity with art historical methodologies; and identify and articulate these arguments within art historical discourse and areas of specialization. The capstone experience also enables students to develop an enriched understanding of the foundations of the discipline, as well as the current landscape of the field.

#### Learning Outcomes

The Art History major has the following learning outcomes:

- Accurate identification of major works of art within periods, cultures, or genres comprising various art history subfields
- Analysis of individual works of art using appropriate art history terminology and placement of them in their aesthetic, historical, and cultural contexts

### Art History

**College of Letters and Science**

100 Dodd Hall
Box 951417
Los Angeles, CA 90095-1417

**Art History**

310-206-6905

**Saloni Mathur, PhD, Chair**

### Faculty Roster

**Professors**

- George T. Baker, PhD
- Charlene Villaserñor Black, PhD
- Sharon E. Gerstel, PhD (George P. Kolovos Family Centennial Term Professor of Hellenic Studies)
- Hui-Shu Lee, PhD
- Lothar von Falkenhausen, PhD
- Glenn Wharton, PhD (Lore and Gerald Cunard Professor of UCLA/Getty Consensus)
- Bronwen Wilson, PhD (Edward W. Carter Professor of European Art)

**Professors Emeriti**

- Robert L. Brown, PhD
- Susan B. Downey, PhD
- Burglind Jungmann, PhD
- Cecelia F. Klein, PhD
- David M. Kunzle, PhD
- Mxiwon Kwon, PhD (Walter Hopos Professor Emerita of Modern and Contemporary Art)
- Steven D. Nelson, PhD
- David A. Scott, PhD
- Deborah L. Silverman, PhD (Presidential Professor Emerita of Modern European History, Art, and Culture)
- Dell Upton, PhD
- Anthony Vidler, DiplArch

**Associate Professors**

- Lamia Balafrej, PhD
- Meredith M. Cohen, PhD
- Stella E. Nair, PhD

**Assistant Professors**

- Tiffany E. Barber, PhD
- Zirwat Chowdhury, PhD
- Kristopher W. Kersey, PhD
- Thiago Sevilhano Pugliani, PhD

**Adjunct Professor**

- John M.D. Pohl, PhD

**Adjunct Assistant Professor**

- Gregory T. Harwell, PhD

### Overview

The Department of Art History endorses an interdisciplinary and intercultural approach to art history of all periods and places. By thinking across current categories and boundaries and even critically interrogating art history itself, students are encouraged to question margins and centers, and practice a socially and politically responsible art history.

The rich and varied art resources available at UCLA and throughout Southern California offer students extraordinary opportunities to supplement the formal curriculum.
Identification of early and cultural characteristics.

Conduct original research, employing appropriate art history theories and methods, and critical use of primary and secondary sources.

Formulation of effective and convincing written and oral arguments, and placement of courses within the larger interpretive traditions of the field.

**Entry to the Major**

**Transfer Students**

Transfer applicants to the Art History major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two art history courses in ancient, Renaissance and baroque, medieval, or modern art and two courses in African, Asian, or pre-Columbian art.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

**Requirements**

**Preparation for the Major**

**Required**: Two courses from Art History 20 through 25 and two courses from 27 through 31. It is strongly recommended that the courses be taken prior to enrollment in upper-division courses. Some of these courses serve as requisites to certain upper-division courses.

**The Major**

**Required**: Eleven upper-division art history courses as follows:


**Undergraduate Minor**

**Art History Minor**

The Art History minor is designed for students who wish to augment their major with a series of courses that analyze the history, theory, and criticism of diverse visual traditions in world culture. On the lower-division level, the minor exposes students to overviews of these traditions in broad time periods from ancient to modern, from the regional to the global, as well as to courses that trace the historical significance of art in the context of specific thematic and media concerns. upper-division courses offer more specialized content that explores crucial episodes or areas with more intense and rigorous theoretical and methodological strategies.

**Admission**

To enter the minor students must be in good academic standing with an overall grade-point average of 2.0 or better, have completed 45 units, and file a petition with the student affairs officer in 206B Dodd Hall, 310-825-3992. Students are advised to declare the minor early and meet with the student affairs officer to plan a coherent program.

**The Minor**

**Required Lower-Division Courses (15 units):**

Three courses selected from Art History 20, 21, 22, 23, 24, 25, 27, 28, 29, 30, 31.

**Required Upper-Division Courses (20 units):**

Five art history courses as follows:


3. One additional art history elective selected from courses 100 through 185; course 197A may also be included.

**Policies**

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

By petition, one upper-division course with substantial art historical content and methodology applied toward the students' majors may also be applied toward this minor.
28. Arts of Africa. (5) Lecture, three hours; discussion, one hour; museum field trips. General introduction to Africa; examination of social and historical contexts of their production; introduction to body of information within framework of conceptual problem through series of case studies. P/NP or letter grading.

29. Chinese Art. (5) Lecture, three hours; discussion, one hour; museum field trips. General introduction to Chinese art, covering major periods from Neolithic to modern age. Presentation of monuments as well as artifacts in various media in their social and historical contexts. P/NP or letter grading.

30. Arts of Japan. (5) Lecture, three hours; discussion, one hour; museum field trips. General introduction to art, architecture, and material culture of Japan, from earliest records to present. P/NP or letter grading.

31. Art of India and Southeast Asia. (5) Lecture, three hours; discussion, one hour; museum field trips. Discussion of selection of monuments and objects from Indian subcontinent and Southeast Asia using key historical, cultural, and religious concepts. Analysis of each monument or object in detail, with their relationships compared and contrasted. P/NP or letter grading.

Lower-Division Seminars. (4) Seminar, three hours. Limited to freshmen. Variable topics; consult Schedule of Classes or department for topics to be offered in specific term. P/NP or letter grading.

98H. Honors Contracts. (1) Seminar, three hours. Limited to students in College Honors Program. Designated as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be repeated for credit. Honors contract noted on transcript. P/NP or letter grading.

99 Student Research Program. (1 to 2) Seminar, three hours. Variable topics in ancient art that reflect interests of individual regular and/or visiting faculty members. Limited to freshmen. Repeated for credit. P/NP or letter grading.

Upper-Division Courses

100. Art Historical Theories and Methodologies. (4) Seminar, three hours. Requisites: courses from 20 through 30. Critical examination of history of discipline of art history, with studies of various theoretical, critical, and methodological approaches to visual arts. Letter grading.

M110A. Art and Architecture of Ancient Egypt, Pre-Dynastic Period to New Kingdom. (4) Same as Classics M110A. Lecture, three hours. Study of architecture, sculpture, painting, and minor arts developed in Predynastic period and Old Kingdom. May be repeated for credit with consent of instructor. P/NP or letter grading.

M110B. Art and Architecture of Ancient Egypt, New Kingdom to Greco-Roman Period. (4) Same as Ancient Near East CM101B. Lecture, three hours. Study of architecture, sculpture, painting, and minor arts developed in Predynastic period and Old Kingdom. May be repeated for credit with consent of instructor. P/NP or letter grading.

M110C. Ancient Egyptian Temple and City of Thebes. (4) Same as Ancient Near East M101C. Lecture, four hours; fieldwork, one hour. Focus on ancient temples of city of Thebes (modern day Luxor). Theban temples are some of best-preserved cult buildings in all of Egypt, and their study illuminates traditions of artistic representation, architectural development, and social and political transformations echoed throughout all of ancient Egypt. Investigation of ritual linking of temples on Nile's eastern and western banks through festival processions, changes in function and form of Theban temples through time, and statuary program of individual temples. P/NP or letter grading.

M110D. Art and Death in Ancient Egypt. (4) Same as Ancient Near East M110D. Lecture, four hours. Ways of death, burial, funerary ritual, and afterlife beliefs in ancient Egypt, as well as in ancient Near East and Nubia, with focus on ancient visual materials—both objects and architecture—from Predynastic to Roman periods. P/NP or letter grading.

M111. Minoan Art and Archaeology. (4) Same as Classics M111A. Lecture, three hours. Requisites: courses 20 or Classics 10 or 51A. Study of development of art and architecture in Minoan Crete from circa 3000 to 1000 BC. P/NP or letter grading.

M112A. Mycenaean Art and Archaeology. (4) Same as Classics M112A. Lecture, three hours. Requisites: courses 20 or Classics 10 or 51A. Study of development of art and architecture in Mycenaean Greece from circa 2000 to 1000 BC. P/NP or letter grading.

M112B. Archaiic Greek Art and Archaeology. (4) Same as Classics M112B. Lecture, three hours. Requisites: courses 20 or Classics 10 or 51A. Study of development of art and architecture of Greek world from approximately 800 through 490 BC. P/NP or letter grading.

M112C. Classical Greek Art and Archaeology. (4) Same as Classics M112C. Lecture, three hours. Requisites: courses 20 or Classics 10 or 51A. Study of development of art and architecture of Greek world from approximately 490 through 350 BC. P/NP or letter grading.

M112D. Hellenistic Greek Art and Archaeology. (4) Same as Classics M112D. Lecture, three hours. Requisites: courses 20 or Classics 10 or 51A. Study of development of art and architecture of Greek world from mid-4th century to final emigration of Greek art forms to Romans. P/NP or letter grading.

M113A. Etruscan Art and Archaeology. (4) Same as Classics M113A. Lecture, three hours. Requisites: courses 20 or Classics 10 or 51A. Study of development of art and architecture of Greek world from circa 1000 BC to end of Roman Republic. P/NP or letter grading.

M113B. Roman Art and Archaeology. (4) Same as Classics M113B. Lecture, three hours. Requisites: course 20 or Classics 10 or 51A. Study of development of art and architecture of Greek world from circa 1000 BC to end of Roman Republic. P/NP or letter grading.

M113C. Late Roman Art. (4) Same as Classics M113C. Lecture, three hours. Requisites: courses 20 or Classics 10 or 51A. Study of development of art and architecture of Greek world from circa 1000 BC to end of Roman Republic. P/NP or letter grading.

M114A-M114B-M114C. Classical Archaeology. (4–4–4) Same as Classics M114A-M114B-M114C. Lecture, three hours. Requisites: courses 20 or Classics 10 or 51A. Study of development of art and architecture of Greek world from circa 1000 BC to end of Roman Republic. P/NP or letter grading.

C114D. Selected Topics in Ancient Art. (4) Lecture, three hours. Variable topics in ancient art that reflect interests of individual regular and/or visiting faculty members. May be repeated twice for credit. Concurrency scheduled with course C214D. P/NP or letter grading.

CM115A. Late Antique Art and Architecture. (4) Same as Classics M115A. Lecture, three hours. Study of architecture and art of late Roman Empire and early Christian world. Concurrently scheduled with course C215A. P/NP or letter grading.

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C117A. Medieval Archaeology. (4) Lecture, three hours. Archaeology of medieval world. Concurrently scheduled with course C217A. P/NP or letter grading.

C117B. Selected Topics in Medieval Art. (4) Lecture, three hours. Variable topics in medieval art that reflect interests of individual regular and/or visiting faculty members. May be repeated twice for credit. Concurrently scheduled with course C217B. P/NP or letter grading.

C118A. Medieval Armenian Art. (4) (Same as Armenian M172.) Lecture, three hours. Examination of cultural and historical impact of Armenian miniature paintings. P/NP or letter grading.

C118B. Armenian Painting, 17th to 20th Century. (4) (Same as Armenian M173.) Lecture, three hours. Overview of development of modern Armenian painting out of its matrix in 17th and 18th centuries. P/NP or letter grading.

C118C. Selected Topics in Armenian Art. (4) Lecture, three hours. Variable topics in Armenian art that reflect interests of individual regular and/or visiting faculty members. Concurrently scheduled with course C218. P/NP or letter grading.

119A. Western Islamic Art. (4) Lecture, three hours. From Tigris and Euphrates Rivers to Spain, 7th to 18th century. P/NP or letter grading.

119B. Eastern Islamic Art. (4) Lecture, three hours. From Tigris and Euphrates Rivers through Afghanistan and parts of central Asia; Ottoman Empire. P/NP or letter grading.

M119C. Introduction to Islamic Archaeology. (4) (Same as Islamic Studies M111 and Middle Eastern Studies M111.) Lecture, three hours. From earliest monuments of Islam in Arabia and Jerusalem to humble remains of small Egyptian port, broad focus on archaeological and standing remains in central Islamic lands (primarily Syria, Egypt, and Iraq), Turkey, Iran, North Africa, and Spain. Profound cultural transformations of Islam in 7th century to early Ottoman period in 16th and 17th centuries, which are traceable in material records. Assessment of effectiveness of tools afforded by historical archaeology to aid understanding of past societies. P/NP or letter grading.

M119D. Archaeology and Art of Christian and Islamic Egypt. (4) (Same as Archaeology M112, Islamic Studies M111, Asian and Mediterranean Studies M112.) Lecture, three hours. Culture of Egypt transformed gradually after Muslim conquest in mid-7th century CE. According to material evidence such as ceramics, textiles, architectural forms, and building techniques, it is functionally impossible to separate pre-Islamic Chnese Egypt from early Islamic Egypt. Although population may have become largely Muslim by 10th century, Egypt retained Coptic in many senses even to 14th century and retains sizeable Christian minority to present. Survey of archaeological remains and standing architecture of Egypt from 6th to 19th century, charting changes and continuities in material culture and status of Egyptian and land use. P/NP or letter grading.

C120. Selected Topics in Islamic Art. (4) Lecture, three hours. Variable topics in Islamic art and architecture that reflect interests of individual regular and/or visiting faculty members. May be repeated twice for credit. Concurrently scheduled with course C220A. P/NP or letter grading.

121A. Italian Renaissance Art of 14th Century. (4) Lecture, three hours. Art and architecture of 14th century. P/NP or letter grading.


121D. Late Renaissance Art: Counter-Reformation. (4) Lecture, three hours. Requisite: course 22. Painting, sculpture, and architecture of late 16th and early 17th centuries considered in context of Counter-Reformation. P/NP or letter grading.


C125A. Southern Renaissance. (4) Lecture, three hours. Art and architecture of Spain or Italy, 16th to late 17th century. Concurrently scheduled with course C225. P/NP or letter grading.

125B. Northern Baroque Art. (4) Lecture, three hours. Requisite: course C125A. Art and architecture of Northern Europe, 16th to late 17th century. P/NP or letter grading.

C126. Selected Topics in Early Modern Art. (4) Lecture, three hours. Variable topics in early modern art that reflect interests of individual regular and/or visiting faculty members. May be repeated twice for credit. Concurrently scheduled with course C226. P/NP or letter grading.

127A. European Art of 17th and 18th Centuries. (4) Lecture, three hours. Requisite: course 20 through 31. Examination of art and visual culture of 17th and 18th centuries in light of political and intellectual developments. Special emphasis on effects of royal courts, colonialism, and revolution. P/NP or letter grading.


M127C. Cultural and Intellectual History of Modern Europe, 19th Century. (4) (Same as History M122E.) Lecture, three hours; discussion, one hour. Designed for juniors/seniors. Climates of taste and climates of opinion. Educational, moral, and religious attitudes; art, thought, and manners of time in historical context. P/NP or letter grading.

C128A-C128B-C128C. History of Photography. (4–4–4) Concurrently scheduled. Course 228A offers greater emphasis on French and German developments of photography before 1850, whereas 228B begins with 1839 and 228C with 1850. Concurrently scheduled with course C228B-C228C. P/NP or letter grading.

C129A. Modern Art, 1900 to 1950. (4) Lecture, three hours. Requisite: course 228A. Artistic and cultural trends following World War I in U.S. and Europe, covering abstract expressionism to pop art. Concurrently scheduled with course C231A. P/NP or letter grading.

C129B. Dada, 1915 to 1923. (4) Lecture, three hours; discussion, one hour (when scheduled). Study of art, literature, and film associated with surrealism movement in France, with special attention to dissent surrealism of writer and philosopher Georges Bataille, as well as to challenge to art history posed by surrealism’s engagement with lessons of psychoanalysis. Concurrently scheduled with course C229C. P/NP or letter grading.

C129C. Surrealism, 1924 to 1939. (4) Lecture, three hours; discussion, one hour (when scheduled). Study of surrealism in visual and intellectual context. P/NP or letter grading.


C133A. American Art before Civil War. (4) Lecture, three hours. Painting, sculpture, and architecture in U.S. from Colonial period through Civil War. Concurrently scheduled with course C233A. P/NP or letter grading.

C133B. American Art, 1860 to 1900. (4) Lecture, three hours. Painting, sculpture, and architecture in U.S. from Civil War to turn of century. Concurrently scheduled with course C233B. P/NP or letter grading.

C133C. American Art, 1900 to 1945. (4) Lecture, three hours. Painting, sculpture, and photography in U.S. from 1900 to 1945. Concurrently scheduled with course C233C. P/NP or letter grading.

C133D. Architecture in U.S. (4) Lecture, three hours. Requisite: course 23. Introduction to single-family house built in U.S. over last 5,000 years. Architecture as vehicle for political and cultural authority, citizenship, ethnic and social identity; its role in defining place and our relationship to natural environment; architectural representation for asserting human control over natural world; its place in world of work and commerce; and its status as professional and aesthetic pursuit. P/NP or letter grading.

133E. American Houses. (4) Lecture, three hours. Major historical considerations of single-family housing that reflect one of two most American contributions to world architecture (next to skyscrapers). Examination of this claim critically by placing single-family houses in broader context of varied dwellings built and occupied by residents of present-day U.S. over last 500 years, including both aesthetically ambitious houses and ordinary (or vernacular) ones, houses of indigenous
art of selected cultures from Burma, Malaysia, Thailand, Cambodia, Vietnam, and Indonesia. P/NP or letter grading.

C158A. Selected Topics in Asian Arts and Architecture. (4) Lecture, three hours. Variable topics in Asian arts and architecture that reflect interests of individual regular and/or visiting faculty members. May be repeated twice for credit. Concurrently scheduled with course C260A. P/NP or letter grading.

C160. Art and Empire. (4) Lecture, three hours; discussion, one hour (when scheduled). Examination of relationship between art and imperial ideologies and introduction to current issues in colonial studies and postcolonial criticism. Concurrently scheduled with course C260A. P/NP or letter grading.

161. Cities in History. (4) Lecture, three hours; discussion, one hour. Examination of history of cities worldwide, locating cities in their aesthetic, social, cultural, and symbolic contexts. History of cities from origins of urbanism to present, with focus on recent centuries. P/NP or letter grading.

C169. Selected Topics in Architectural History. (4) Lecture, three hours. Variable topics in architectural history that reflect interests of individual regular and/or visiting faculty members. May be repeated twice for credit. Concurrently scheduled with course C269. P/NP or letter grading.

C170A. Museum Studies. (4) Lecture, three hours; discussion, one hour (when scheduled). Introduction to museology as critical practice, with emphasis on history and theory of museums and impact of culture and society on museological theory and practice. Concurrently scheduled with course C270A. P/NP or letter grading.

C170B. Museum Studies Practicum. (2 to 4) Lecture, three hours. On-site examination and discussion of selected museums, exhibitions, and associated published and distributed materials, and of museum and gallery institutions, practices, and policies. Concurrently scheduled with course C270B. Letter grading.

C171. Seminars in Museum Studies. (4) Seminar, three hours. Variable topics in museum studies that reflect interests of individual regular and/or visiting faculty members. May be repeated for credit with topic change. Concurrently scheduled with course C271. P/NP or letter grading.

C172A. Preservation of Art. (4) Lecture, three hours. Designed for Anthropology and Art History majors and other juniors/seniors. Introduction to preservation of cultural heritage materials with emphasis on what should be preserved and why, as well as who should be involved in decision-making process. Discussion of issues of preservation and restoration of these cultural heritage materials in context of on-site and on-the-job professional contexts. Materials and techniques used to make cultural heritage materials, in relation to preservation efforts, needed to prevent decay and loss. Introduction to examples of conservation issues related to sites, buildings, monuments, and collections. Ethical and contextual approaches with reference to changing values, illustrating how cultural materials may have been treated differently according to those values. Concurrently scheduled with course C272A. P/NP or letter grading.

C172B. Art: Fakes, Forgeries, and Authenticity. (4) Lecture, three hours. Examination of concepts of authenticity, originality, fakes, and forgeries in art. Overview of problems inherent in concept of authenticity and description of many examples of problems related to this concept. Critical discussions based on objections from variety of cultures. Introduction to subject of fakes and account of three different areas of connoisseurship that are essential component of production, study, and scientific examination of fakes. Natural art connoisseurship is examined in many examples from Renaissance and earlier panel paintings, as well as antiquities and traditional African arts. Background of art restoration and conservation discussed in relationship to connoisseurship and technical approaches. Scientific tools that form basis of another kind of connoisseurship described in terms of dating techniques that can be applied directly to works of art and technical methods by which material constituents of works of art are studied. Concurrently scheduled with course C272C. P/NP or letter grading.

M179. Cultural Heritage and Identity Representation. (4) Lecture, three hours; seminar, three hours. Same as Asian Near East M179.) Lecture, three hours; discussion, one hour. Exploration of what it takes to run museum and create exhibit. Introduction to different types of museum work, ranging from collecting and curation, to research, collection, presentation, visitor experience, and management. Students jointly create exhibit based on Fowler Museum collection. Students research and discuss context of different stakeholders that relate to material under consideration. Consideration of narrative exhibit and how objects and their arrangement convey deliberate or accidental messages. Consideration of audiences as well as original context of each object. Focus on people behind objects, technologies, or material characteristics. P/NP or letter grading.

185. Undergraduate Seminar. (4) Seminar, three hours. Designed for juniors/seniors. Selected aspects of art history explored through readings, discussion, research papers, and oral presentations. May be repeated twice for credit. P/NP or letter grading.

188A. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors College 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation for oral presentation. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188B. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: course 188A. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to final course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced corequisite: course 188SC. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE 885 course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

189A-B. Honors Research in Art History. (4-4) Tutorial, two hours. Limited to juniors/seniors. Supervised independent research investigation, and culminating in an honors thesis of approximately 30 pages. Individual contract required. In Progress (189A) and letter (189B) grading.

190. Directed Research in Art History. (2 to 4) Tutorial, two hours. Limited to juniors/seniors. Supervised individual study in regularly scheduled meetings with faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

200. Art Historical Theories and Methodologies. (4) Seminar, three hours. Critical examination of history of discipline of art history, with studies of various theoretical, critical, and methodological approaches to visual arts from antiquity to present. May be repeated for credit with consent of adviser. S/U or letter grading.

207. Consortium Scholar Seminar at Getty Research Institute. (4) Seminar, three hours. Critical examination of historiographic traditions of specific areas and fields within discipline of art history, concentrating on particular theoretical and/or methodological contributions of one or more authors. May be repeated with consent of adviser. S/U or letter grading.

208. Topics in Theory and Criticism in Art History. (4) Seminar, three hours. Focused studies of various theoretical and critical traditions within art history, concentrating on particular issues, authors, or methodologies either within or across historical and cultural areas. May be repeated for credit with consent of adviser. S/U or letter grading.

209. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate course lecture. Exploration of topics in greater depth through supplemental readings, papers, or other activities arranged with faculty seminar instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

198HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

198HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

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198HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

198HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

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C239A. Maya Art and Architecture. (4) Lecture, three hours. Requisite: course 27. Study of art of selected Maya-speaking cultures of southern Mesoamerica from circa 2000 BC to Conquest, with particular emphasis on history and iconography. Concurrently scheduled with course CM139A. S/U or letter grading.

C239B. Aztec Art and Architecture. (4) Lecture, three hours. Requisite: course 27. Painting, sculpture, architecture, and urbanism of Inca from their empire’s height in late 15th century to their political and cultural fragmentation during Spanish occupation of Andes (1532 to 1824). Concurrently scheduled with course C139C. S/U or letter grading.

C239C. Inca Art and Architecture. (4) Lecture, three hours. Exploration of art, architecture, and urbanism of Inca from their empire’s height in late 15th century to their political and cultural fragmentation during Spanish occupation of Andes (1532 to 1824). Concurrently scheduled with course C139C. S/U or letter grading.

C240A. Selected Topics in Arts of Indigenous Americans. (4) Lecture, three hours. Variable topics in artistic production of Native peoples across Americas. May be repeated for credit with consent of adviser. S/U or letter grading.


C242A. Mexican Art in Modern Age. (4) Lecture, three hours. Mexican art of 19th and 20th centuries, from foundation of academy in 1765 to present day. Study of art and revolution, muralism, surrealism, indigenism, postcolonialism, and postmodernism in painting, sculpture, prints, photography, and architecture. Concurrently scheduled with course C142A. S/U or letter grading.

C242B. Latin American Art of 20th Century. (4) Lecture, three hours; discussion, one hour (when scheduled). Mainstream modern and contemporary art and architecture of selected Latin American countries, including Brazil, Mexico, and Argentina. Special emphasis on student participation in cultural and political concerns, both national and international. Concurrently scheduled with course C142B. S/U or letter grading.

C242C. Mexican Art in Modern Age. (4) Lecture, three hours. Mexican art of 19th and 20th centuries, from foundation of academy in 1765 to present day. Study of art and revolution, muralism, surrealism, indigenism, postcolonialism, and postmodernism in painting, sculpture, prints, photography, and architecture. Concurrently scheduled with course C142B. S/U or letter grading.

C243. Semitic, Mediterranean, and Transcultural Approaches to Contemporary Art in Americas. (4) Same as Asian C237. Seminar, three hours. Studies the current state and future of research, teaching, and museum practice in contemporary art of Americas, with focus on hemispheric and transnational approaches. Study of influential theoretical texts from literate studies and the critical examination of recent publications in arts, including museum exhibition catalogues, as hemispheric and transnational approaches to contemporary Latin and Latin American arts are posited. Focus intersects with other related topics, including art post-1988; comparative indigeneities in Americas; art, globalism, and biennials; decolonial turn; transnational feminisms; and New American counter narratives. S/U or letter grading.

C245A. Architecture and Urbanism in Africa. (4) Lecture, three hours; discussion, one hour (when scheduled). Survey of African visual practices since mid-20th century, with special emphasis on changing meaning of art object, status of African artist, global reception of contemporary African art, and very definitions of contemporary African art. Concurrently scheduled with course C145B. S/U or letter grading.

C246. African Art. (4) Seminar, three hours. Studies in selected topics in art of sub-Saharan Africa. May be repeated for credit with consent of adviser. S/U or letter grading.

C246A. Selected Topics in African Art. (4) Lecture, three hours. Variable topics in African art that reflect interests of individual regular and/or visiting faculty members. May be repeated twice for credit. Concurrently scheduled with course C146A. S/U or letter grading.

C247. Oceanic Art. (4) Seminar, three hours. Studies in selected topics in art of Pacific islands. May be repeated for credit with consent of adviser. S/U or letter grading.

C248A. Art and Material Culture, Neolithic to 210 BC. (4) Lecture, three hours; discussion, one hour. Genesis of Chinese civilization in light of new archaeolog- ical finds, including sites and works of art (e.g., ceramics, bronzes, jades). Concurrently scheduled with course C148A. S/U or letter grading.

C248B. Art and Material Culture of Early Imperial China, 210 BC to AD 906. (4) Lecture, three hours. Palaces and tombs of early imperial dynasties, impact of Buddhist art (cave temples), rise of new media and technologies. Concurrently scheduled with course C148B. S/U or letter grading.

C248C. Art and Material Culture of Late Imperial China, 906 to 1911. (4) Lecture, three hours. Secular and religious (Buddhist and Taoist) architecture, painting, sculpture, and various luxury industries (lacquer, porcelain, textiles, jade, bronze, furniture, wood and bamboo carving, etc.). Concurrently scheduled with course C148C. S/U or letter grading.


C248E. Art in Modern China. (4) Lecture, three hours. Concentrated look at major schools and masters of Chinese art from turn of 20th century to present, with focus on interaction with foreign cultures and issues of self-identity, assimilation, modernity, tradition, and continuity. Consideration of recent developments in Chinese art in global context. Concurrently scheduled with course C148E. S/U or letter grading.


C248G. Gardens in Chinese Art and Culture. (4) Lecture, three hours. Advanced study in the theory, practice, and representation of Chinese gardens in their historical, philosophical, artistic, social, and cultural contexts through literary writings, paintings, and aspects of material culture. Concurrently scheduled with course C148G. S/U or letter grading.

C249A. Selected Topics in Chinese Art. (4) Lecture, three hours. Variable topics in Chinese art that reflect interests of individual regular and/or visiting faculty members. May be repeated twice for credit. Concurrently scheduled with course C149A. S/U or letter grading.


C251A. Selected Topics in Japanese Art. (4) Lecture, three hours; discussion, one hour (when scheduled). Studies in selected topics in Japanese art. Concurrently scheduled with course C151A. S/U or letter grading.


C252A. History of Korean Painting. (4) Lecture, three hours. History of Korean ceramics from Neolithic period to 19th century, with special emphasis on technological and stylistic developments. Concurrently scheduled with course C152C. S/U or letter grading.

C252C. History of Korean Buddhist Art. (4) Lecture, three hours. History of Korean Buddhist art from Three Kingdoms to contemporary, with special emphasis on Buddhist iconography and relationship between sculpture, painting, and architecture. Concurrently scheduled with course C152D. S/U or letter grading.

C253A. Selected Topics in Korean Art. (4) Lecture, three hours. Variable topics in Korean art that reflect interests of individual regular and/or visiting faculty members. May be repeated twice for credit. Concurrently scheduled with course C153. S/U or letter grading.

C253B. Selected Topics in Korean Art. (4) Lecture, three hours. Studies of Korean art under different art- historical perspectives, methods, and theories. Indi- vidual studies, with emphasis on professional presen- tation. Group studies may be linked to exhibition proj- ects. May be repeated with consent of instructor. S/U or letter grading.

C254A. Advanced Indian Art. (4) Lecture, three hours. Requisite: course 154A. Study in Indian sculpture and architecture. Concurrently scheduled with course C154C. S/U or letter grading.

C254B. Modern and Contemporary South Asian Art. (4) Lecture, three hours. Studies in modern and con- temporary South Asian art from 1900 to present. Letter grading.

C255A. Selected Topics in South and Southeast Asian Art. (4) Lecture, three hours. Variable topics in South and Southeast Asian art that reflect interests of individual regular and/or visiting faculty members. May be repeated twice for credit. Concurrently scheduled with course C155. S/U or letter grading.

C255B. Indian Art. (4) Lecture, two hours. Advanced studies in secular and religious artistic traditions of India. May be repeated for credit with consent of adviser. S/U or letter grading.

C256A. Selected Topics in Asian Arts and Architec- ture. (4) Lecture, three hours. Variable topics in Asian arts and architecture that reflect interests of individual regular and/or visiting faculty members. May be repeated twice for credit. Concurrently scheduled with course C156A. S/U or letter grading.

C256B. Topics in Asian Archaeology. (4) Same as Anthropology M216. Seminar, three hours. Designed for graduate students. Topics may include identifica- tion of ethnic groups in archaeology, archaeology of religion, ritual archaeology, archaeology of commerce and trade and their influence on social development, ar- chaeology of language dispersal, cultural contact and trade, and cultural influence. S/U or letter grading.

C258C. Fieldwork in Archaeology. (2 to 8) Fieldwork, to be arranged. Participation in archaeological exca- vations or other archaeological research under supervision of staff. May be repeated for credit with consent of adviser. S/U or letter grading.

C260A. Art and Empire. (4) Lecture, three hours; dis- cussion, one hour (when scheduled). Examination of relationship between art and imperial ideologies and introduction to current issues in colonial studies and postcolonial criticism. Concurrently scheduled with course C160. S/U or letter grading.

C269. Selected Topics in Architectural History. (4) Lecture, three hours. Variable topics in architectural history that reflect interests of individual regular and/or visiting faculty members. May be repeated for credit. Concurrently scheduled with course C169. S/U or letter grading.

C270A. Museum Studies. (4) Lecture, three hours; discussion, one hour (when scheduled). Introduction to museum studies and teaching practice, with emphasis on history and theory of museums and impact of culture and society on current museum theory and practice. Concurrently scheduled with course C170A. S/U or letter grading.

C270B. Museum Studies Practicum. (2 to 4) Lecture, three hours. On-site examination and discussion of selected works, exhibitions, and associated publications. Variable topics in museum studies that reflect interests of individual regular and/or visiting faculty members. May be repeated for credit. Concurrently scheduled with course C170B. Letter grading.

C271. Selected Topics in Museum Studies. (4) Seminar, three hours. Variable topics in museum studies that reflect interests of individual regular and/or visiting faculty members. May be repeated for credit with topic change. Concurrently scheduled with course C171. S/U or letter grading.

C272A. Preservation of Art. (4) Lecture, three hours. Designing strategies for preservation and restoration of works of art. Examination of historical and technical aspects with reference to changing values illustrating how cultural materials may have been treated differently according to those values. Concurrently scheduled with course C172A. S/U or letter grading.

C272B. Principles, Practice, and Ethics in Conservation of Cultural Heritage. (4) (Formerly numbered 272B.) (Same as Conservation M221.) Seminar, three hours. Introduction to preservation of cultural heritage materials, including what should be preserved and why, as well as who should be involved in decision-making process. Discussion of issues of preservation and restoration of these cultural heritage materials both in museum and outdoor environments contexts. Materials and techniques used to make cultural heritage materials durable in relation to preservation efforts needed to prevent decay and loss. Introduction to examples of conservation issues related to sites, buildings, monuments, and collections. Ethical and contextual aspects with reference to changing values illustrating how cultural materials may have been treated differently according to those values. Concurrently scheduled with course C172A. S/U or letter grading.

C496. Teaching Apprentice Practicum. (1 to 4) Seminar, three to six hours. Selected topics in arts explored through variety of studio work, performance, discussion, research papers, and other activities and led by lecture course instructor. May be repeated for credit. S/U grading.

10. Arts Encounters: Exploring Arts Literacy in 21st Century. (5) Lecture, four hours; discussion, one hour; field trips, three hours; outside study, seven hours. Through series of direct encounters with art and artists across global range of practices, course equips students with kinds of critical skills that enhance their understanding of, and sharpen their appetite for, wide range of artistic practices. Attendance at performance/art events outside normal class schedule is mandatory. P/NP or letter grading.

C275. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

C276. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Designed for graduate students. Required of all new teaching assistants during Fall Quarter of their teaching assistant appointment. Workshop/seminar in teaching techniques and pedagogical issues, consisting of readings, discussions, and guest speakers on selected topics. May not be applied toward MA or PhD course requirements. S/U grading.

C375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Designed for graduate students. Introduction to technological support available to new departmental teaching assistants. Topics include exploring functions of teaching assistant archive, COLE, MyUCLA, Gradebook, and Turnitin, and ways to efficiently use these tools. Introduction to lesson planning and ways to establish effective teaching strategies in and out of classroom. May be applied toward MA or PhD course requirements. S/U grading.

C396. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: consent of UCLA graduate advisor and graduate dean, and host campus instructor, department chair, and graduate dean. Used to record enrollment of UCLA students in courses taken under cooperative arrangements with USC. S/U grading.

C397. Preparation for MA Comprehensive Examination or PhD Qualifying Examinations. (2 to 12) Tutorial, to be arranged. S/U grading.


ARTS AND ARCHITECTURE
ARTS AND ARCHITECTURE SCHOOLWIDE PROGRAMS
School of the Arts and Architecture
2200 Broad Art Center
Box 951620
Los Angeles, CA 90095-1620
School of the Arts and Architecture 310-206-3564
School e-mail

Overview
The School of the Arts and Architecture offers courses as part of the schoolwide curriculum.
own major. Proposals are prepared with faculty guidance and sponsorship and are thoroughly examined for cogency, completeness, and academic merit.

**Undergraduate Major**

**Individual Field BA in Arts and Architecture**

Highly motivated students who find that no single major accommodates their specific interest in a given subject may propose designing their own major. Proposals are prepared with faculty guidance and sponsorship and are thoroughly examined for cogency, completeness, and academic merit.

**Learning Outcomes**

The Individual Field major has the following learning outcomes:

- Demonstrated understanding of how the research and creative methodologies of different disciplines can interface with and illuminate the understanding of another
- Design of a course of study that shows a deep understanding of how the disparate disciplines are connected
- Demonstrated ability to read in the scholarly discourse and style of different disciplines
- Development of voice in written thesis for an interdisciplinary audience
- Written thesis that demonstrates mastery of diverse fields as a result of research sources and production of scholarly and creative work outside of traditionally defined academic boundaries
- Production of a final paper or creative project that synthesizes and integrates a principal theme or themes common to coursework and diverse fields of knowledge

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**ASIAN AMERICAN STUDIES**

**College of Letters and Science**

3332 Rolfe Hall
Box 957225
Los Angeles, CA 90095-7225

**Asian American Studies**

310-267-5592

**Natalie R. Masuoka, PhD, Chair**

**Faculty Roster**

**Professors**

Keith Luan Camacho, PhD
Michelle L. Caswell, PhD
Mitchell J. Chang, PhD
C. Cindy Fan, PhD
Gilbert C. Gee, PhD
Grace Kyungwon Hong, PhD
Jerry Kang, JD
Vinay Lal, PhD
Anna S. Lau, PhD

Jinqi Ling, PhD
Purnima Mankekar, PhD
Valerie J. Matsumoto, PhD (George and Sakaye Aratani Professor of Japanese American Incarceration, Redress, and Community)
Vinlt Mukhi, PhD
Thu-huong Nguyen-vo, PhD
Kyeoung R. Park, PhD (Korea Times–Hankook Ibo Endowed Professor of Korean American Studies and Law)
Shu-mei Shih, PhD (Irvings and Jean Stone Professor)
Renee E. Tajima-Peña, BA (UCLA Alumni and Friends of Japanese Ancestry Professor of Japanese American Studies)
Karen N. Umemoto, PhD
David K. Yoo, PhD
Min Zhou, PhD

**Professors Emeriti**

Marjorie Kagawa-Singer, RN, PhD
Snehenhu B. Kar, DrPH, MSc
Paul M. Ong, PhD

**Associate Professors**

Victor Bascara, PhD
Lucy M. Burns, PhD
Jennifer J. Chun, PhD
Evyn Lê Espiritu Gandhi, PhD
Natalie R. Masuoka, PhD
Robert Chao Romero, JD, PhD

**Assistant Professors**

Juliani T. Anesi, PhD
Jolie Chea, PhD
Loubna N. Gutami, PhD
Cindy C. Sangalang, PhD
Lee Ann S. Wang, PhD

**Adjunct Professor**

Benjamin K.P. Woo, MD

**Adjunct Associate Professor**

Tritia Toyota, PhD

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**Public Health Community Health Sciences Department and Asian American Studies MA/Social Welfare MSW with the Luskin School of Public Affairs Social Welfare Department. The Asian American Studies educational program performs the following missions: conducts teaching that enables students to learn, think, and practice in a nurturing and intellectually stimulating environment; equips students with theoretical and practical knowledge, as well as analytical and communicative skills that reflect the excellence of the faculty; and prepares students either for advanced graduate studies or for life after college as artists, citizens, entrepreneurs, political leaders, and professionals. As an interdisciplinary field, the Asian American Studies curriculum examines the contemporary realities, diverse experiences, and histories of Asian and Pacific Islander Americans. The topical range of such examination includes community work and development, cultural production (including digital media and creative expression), gender, and generational dynamics, immigration and diaspora, political participation, social activism, and transnational encounters. The teaching and research methods used by faculty members in the department are interdisciplinary and comparative in nature, with a healthy mix of quantitative, qualitative, interpretive, and applied approaches. These methods develop out of dynamic cross-fertilization among faculty expertise that registers both major intellectual shifts in the field and notable trends from disparate disciplines, professional practices, and epistemological traditions.**

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**Undergraduate Major**

**Asian American Studies BA**

The BA program in Asian American Studies provides a general introduction for students who anticipate advanced work at the graduate level or careers in research, public service, and community work related to Asian and Pacific Islander Americans.

**Capstone Major**

The Asian American Studies major is a designated capstone major. Students are required to complete either a community-based applied team research project or an independent scholarly or creative expression project. Those who select the community-based project are expected to use their scholarly knowledge and analytical skills to examine problems facing Asian and Pacific Islander American populations, think creatively and innovatively about evidence-based solutions, and to produce reports that benefit community stakeholders. Those who select to design and complete an independent scholarly or creative expression project pursue a key idea or theme of personal interest that is related to their prior coursework and to the experiences and realities of Asian and Pacific Islander Americans. Through their capstone work, all students are expected to demonstrate their skills in using and synthesizing knowledge gained in disparate courses and communicating effectively their findings and
conclusions in a final paper, report, or project and in a public forum.

Learning Outcomes
The Asian American Studies major has the following learning outcomes:

- Development of literacy in foundational histories, emergent and transnational directions, theories, geographies, and ideas of ethnic studies
- Understanding of past and present Asian American and Pacific Islander issues, communities, social movements, geographies, and thought
- Curation of skills in critical and interdisciplinary methodological training in archival research, oral history, ethnography, creative production, data collection and analysis, etc.
- Engagement with pedagogies that examine Asian American and Pacific Islander and ethnic studies decolonial epistemologies and creative expressions
- Centering of the relationship between theory and community engagement, social justice, activism, transformative change, and movement building

Entry to the Major

Admission
An overall grade-point average of 2.0 or better is required for admission to the major.

Transfer Students
Transfer applicants to the Asian American Studies major with 90 or more units must complete the following introductory course if possible prior to admission to UCLA: one lower-division Asian American studies course or one course that focuses on Asian Americans.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major

Required: Two courses from Asian American Studies 10 or 10W, 20 or 20W, 30 or 30W, 40 or 40W, 50 or 50W.

The Major

Required: A total of 12 upper-division courses, including one course from each of the following four categories: (1) Asian American and Pacific Islander Communities and Social Movements selected from Asian American Studies M108, 109, 110, 113, M116, M119, 120, 121, 122B, 140XP, 141AX, 141BX, C142A, C142B, C142C, M143A, M160, M168, 172C, 187A, 191A, 198A, 198B, 198C, 199; two additional courses from any of the four upper-division categories; five elective courses selected from Asian American Studies 103 through 199; and one capstone project course selected from Asian American Studies 185 or 186.

Honors Program
Through the Asian American Studies honors program, Asian American Studies majors undertake a year-long thesis or its equivalent with the guidance and supervision of a faculty member. Successful completion of the departmental honors program is indicated on the transcript. For additional information about the departmental honors program, contact the undergraduate academic adviser.

Honors students must take the Asian American Studies 198A, 198B, and 198C sequence in which they write a thesis or its equivalent under the direction of a faculty member.

 Policies

The Major
Courses may only satisfy one of the four upper-division categories in the major at a time. No course may be applied to more than one category.

No more than 4 graded units of courses numbered 192 and 198 may be applied toward the major.

No more than 12 graded units of courses numbered 195, 197, 198, and 199 may be applied toward the major.

Each course applied toward the major must be taken for a letter grade, each must be at least 4 units, and students must have an overall grade-point average of 2.0 or better.

Honors Program
For additional information about the departmental honors program, contact the undergraduate academic adviser.

Admission
The honors program is open to junior and senior Asian American Studies majors who have (1) 90 or more total units, (2) a grade-point average of 3.5 or better in upper-division Asian American Studies courses and an overall cumulative GPA of 3.0 or better, and (3) completed two lower-division Asian American Studies courses.

Undergraduate Minors

Asian American Studies Minor
The Asian American Studies minor is designed for students who wish to gain understanding of and competence in Asian American Studies.

Pilipino Studies Minor
The Pilipino Studies minor produces graduates competent in histories and contemporary experiences of Filipinos in the U.S. and elsewhere in the world. Student understanding of historical and contemporary histories of Filipinos is grounded in questions of equality, social justice, and disparity, which supply a vocabulary and critical thinking skills necessary to engage with issues including class, cultural production.
gender, identity formation, labor, migration, and representation. The minor consists of broad courses that study national and diasporic identities as a social formation rather than an innate and unchanging biological assignation. As an interdisciplinary field, Filipino studies draws from American studies, anthropology, Asian studies, American studies, ethnic studies, history, literary and performance studies, Philippine studies, and sociology.

Admission
To enter the minor, students must have an overall grade-point average (GPA) of 2.0 or better, have completed the two lower-division minor courses with a GPA of 2.0 or better, and file a petition with the department undergraduate academic adviser, 3339 Rolfe Hall.

The Minor
Required Lower-Division Courses (10 units):
- One course from Asian American Studies 10 or 10W, 20 or 20W, 30 or 30W, 40 or 40W, 50 or 50W, and one course from Filipino 1, 2, 3, 4, 5, 6, or History 9E.

Required Upper-Division Courses (20 units):
- One course from Asian American Studies 133, M171D, 176; one course from Anthropology 116S, History 176A, 176B, 176C, Filipino 170; three additional upper-division courses from the lists above or from Filipino 152, 155, 170, Geography 145Y.

Policies
A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Major
Asian American Studies MA
Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Concurrent Degree Programs
Concurrent degree programs allow students to reduce the number of courses required for two degrees, since some courses may apply to both degrees.

- Asian American Studies MA/Master of Public Health
- Asian American Studies MA/Master of Social Welfare

Asian American Studies
Lower-Division Courses

10. History of Asian Americans. (5) Lecture, three hours; discussion, one hour. Not open for credit to students with credit for course 10W. Multidisciplinary examination of history of Asians and Pacific Islanders in U.S. P/NP grading.

10W. History of Asian Americans. (5) Lecture, three hours; discussion, two hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Not open for credit to students with credit for course 10. Multidisciplinary examination of history of Asians and Pacific Islanders in U.S. Satisfies Writing II requirement. Letter grading.

M18. Leadership and Student-Initiated Retention. (2) Same as African American Studies M18, American Indian Studies M18, and Chicana/o and Central American Studies M18.) Seminar, two hours. Limited to freshmen/sophomores/first-year transfer students. Not open for credit to students with credit for course M168. Exploration of issues in retention at UCLA through lens of student-initiated and student-run programs, efforts, activities, and services. Focus on populations with historically low graduation rates targeted by Campus Retention Committee. May not be applied toward departmental major or minor elective requirements. May be repeated once for credit. Letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

20. Contemporary Asian American Communities. (5) Lecture, three hours; discussion, one hour. Multidisciplinary introduction to contemporary Asian American populations and communities in U.S. Topics include contemporary immigration, demographic trends, sociocultural, economic, and political issues, and interethnic relations. P/NP or letter grading.

20W. Contemporary Asian American Communities. (5) Lecture, three hours; discussion, two hours. Enforced requisite: English Composition 3. Not open for credit to students with credit for course 20. Multidisciplinary introduction to contemporary Asian American populations and communities in U.S. P/NC grading. Examination of demographic, political, and sociocultural trends, sociocultural, economic, and political issues, and interethnic relations. Satisfies Writing II requirement. Letter grading.

30. Asian American Literature and Culture. (5) Lecture, three hours; discussion, one hour. Enforced requisite: English Composition 3. Not open for credit to students with credit for course 30W. Multidisciplinary introduction to Asian American literature and cultural production. Exploration of cultural politics and creative expression of Asian Pacific Americans in their own terms and in context of emergence and reception of artistic works—from personal, local, regional, national, and to global/imperial. Explicit and implicit comparison of Asian American cultural production to diverse experiences of other aggregated groupings, historic and emergent. Addresses intersectional issues of gendering, sexuality, non-secularity, and socioeconomical conditions. P/NP grading.

30W. Asian American Literature and Culture. (5) Lecture, three hours; discussion, two hours. Enforced requisite: English Composition 3. Not open for credit to students with credit for course 30W. Multidisciplinary introduction to Asian American literature and cultural production. Exploration of cultural politics and creative expression of Asian Pacific Americans in their own terms and in context of emergence and reception of artistic works—from personal, local, regional, national, and to global/imperial. Implicit and explicit comparison of Asian American cultural production to diverse experiences of other aggregated groupings, historic and emergent. Addresses intersectional issues of gendering, sexuality, non-secularity, and socioeconomical conditions. Satisfies Writing II requirement. Letter grading.


50. Asian American Women. (5) Lecture, three hours; discussion, one hour. Overview of history of feminist theory and intersection of gender, class, race/ethnicity from cross-cultural perspectives, with focus on Asian American women’s lived experiences in U.S. Topics include Asian American women’s roles in family life, work, community organization, social change, and cultural creativity. Examination of broader structural forces that affect women in society, such as racialization, immigration, global capitalism, colonialism and postcolonialism, and social movements. P/NP or letter grading.

50W. Asian American Women. (5) Lecture, three hours; discussion, two hours. Enforced requisite: English Composition 3. Not open for credit to students with credit for course 50. Overview of history of feminist theory and intersection of gender, class, race/ethnicity from cross-cultural perspectives, with focus on Asian American women’s lived experiences in U.S. Topics include Asian American women’s roles in family life, work, community organization, social change, and cultural creativity. Examination of broader structural forces that affect women in society, such as racialization, immigration, global capitalism, colonialism and postcolonialism, and social movements. Satisfies Writing II requirement. Letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

97. Variable Topics in Asian American Studies. (1 to 2) Tutorial, one to two hours. Current topics and particular research methods in Asian American studies through readings and other assignments. May be repeated for credit. P/NP grading.

97. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Enrolled in one course to conduct original research for interdivisional students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required. Research Center. May be repeated. P/NP grading.
Upper-Division Courses

103. Social Science Research Methods. (4) Lecture, three hours; discussion, one hour. Designed for juniors/seniors. Introduction to fundamentals of conducting social science research on Asian American communities. Fieldwork conducted using various research methods and exercises in evaluating nature and quality of scientific research on Asian American issues. P/NP or letter grading.

104A. Field Studies Methods in Asian Pacific Communities. (4) Lecture, three hours. Preparation: one course from 101 through M191F. Development of community profiles on Asian Pacific American communities. Seminar, field, and laboratory. Survey of current research and methods to conduct community research, using various field studies techniques of data collection. P/NP or letter grading.

104B. Special Internships in Asian Pacific Communities. (4) Fieldwork, eight hours minimum. Required: course 104A or another Asian American studies course (except 199). Integrates academic and empirical work by providing students challenge of performing public service and community work in Asian Pacific or other multicultural communities, and of bringing their ongoing internship experiences back to classroom. May be repeated for credit. P/NP or letter grading.

105. Historical Research Methods. (4) Seminar, three hours. Required: course 10. Introduction to methods used to locate and analyze source materials for research on Asian American history. Historians have used wide range of sources that may include archival materials, oral history, material culture, and more. P/ NP or letter grading.

106. Scholarly and Creative Communication in Asian American Studies. (4) Lecture, three hours. Designed for junior Asian American Studies majors and minors. Examination of alternative modes of expression to effectively reach academic and nonacademic audiences, including written text, visual materials, and performance. Exploration of scholarly works by looking at how narratives are developed, ideas and values are framed, or knowledge is generated and transmitted, through traditional or electronic mediums. Investigation of discursive and popular forms, stylistic patterns, and communicative practices. Themes and content vary by term. Independent research related to course objective may be pursued with guidance of instructor. Letter grading.


108. Policy, Planning, and Community. (4) Same as Urban Studies M122. Lecture, three hours; field laboratory. Project-oriented methods course on conducting needs assessment in Asian American communities. Geographic information systems to be used with guidance from instructor. Sharing and critiquing of other student works in progress. P/NP or letter grading.

109. Asian American and Pacific Islander American Research. (4) Lecture, three hours. Examination of role that war and immigration have played in history and culture of Asian Americans, drawing on diverse set of materials ranging from Asian American literature, Hollywood movies, and wartime propaganda to political speeches, Supreme Court decisions, to evaluate relationships between Asian American communities and geopolitical conflicts from late-19th century to contemporary period. P/NP or letter grading.

110. Asian American and War. (4) Lecture, three hours. Interdisciplinary examination of role that war has played in history and culture of Asian Americans, drawing on diverse set of materials ranging from Asian American literature, Hollywood movies, and wartime propaganda to political speeches, Supreme Court decisions, to evaluate relationships between Asian American communities and geopolitical conflicts from late-19th century to contemporary period. P/NP or letter grading.

112A. Historical Survey of Asian American Literature. (5) Same as English M102A) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Survey of Asian American literature either produced from or thematically reflecting pre-1980 period. Issues include immigration, diaspora, generational conflict, appropriation of cultural traditions, ethnic/gender formation, interesting and dynamic work by such authors as Edith Eaton, Youmang Higg, Carlos Bulosan, Hisaye Yamamoto, John Okada, Frank Chin, and Maxine Hong Kingston.

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112B. Contemporary Asian American Literary Issues and Criticism. (5) Same as English M102B) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Survey of Asian American literature that explores key literary and critical issues, such as race and geography, aesthetics and activism, cultural work and immigrant labor, kinship and sexuality, community profiles on Asian Pacific American communities, with emphasis on key role that
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M129. Health Issues for Asian Americans and Pacific Islanders: Myth or Model? (4) [Same as Community Health Sciences M140.] Lecture, three hours, fieldwork, one hour. Introductory overview of mental and physical health issues of Asian Americans and Pacific Islanders; identification of gaps in health status indicators and barriers to both care delivery and research for these populations. Letter grading.


130B. Chinese Immigrant Literature and Film. (4) [Same as Sociology M153.] Lecture, three hours; discussion, one hour. Knowledge of Chinese not required. In-depth look at Chinese literature by reading literature and watching films. Theories of diaspora, gender, and race to inform thinking and discussion of relevant issues. P/NP or letter grading.

130C. Chinese Immigration, (4) [Same as Sociology M153.] Lecture, three hours; discussion, one hour. Survey of sociological studies of Chinese immigration, with focus on international context, organization, and institutions of Chinese America and its interactions with social environment. P/NP or letter grading.


131B. Japanese Americans and Incarceration. (Seminar, three hours) Lecture, three hours; discussion, one hour. In-depth analysis of key literature about mass incarceration of Japanese Americans during World War II. Development of original research paper based on primary sources. P/NP or letter grading.

131C. Japanese American Resettlement. (4) Seminar, three hours; discussion, one hour. In-depth analysis of key literature about resettlement of Japanese Americans during World War II. Development of original research paper based on primary sources. P/NP or letter grading.


135. Southeast Asian Refugee Communities in U.S. (4) Lecture, three hours. Survey of contemporary Southeast Asian communities and examination of political actions that led to migration of almost two million people from Laos, Cambodia, and Vietnam. With close attention to history of U.S. imperialism and Cold War politics, screening of fiction and nonfiction films by and/or about Southeast Asian refugees. P/NP or letter grading.

140XP. Power to People: Asian American and Pacific Islander Community-Based Learning. (4) [Formerly numbered 140LSL.] Lecture, two hours; fieldwork, four hours. Enforced requisite: course 40W. Service-learning course to engage and critically examine community organizing and community-based organizations in the Pacific Islander communities. Credit in high demand, who employs domestic workers, and why immigrants and women of color make up large percentage of this workforce. Exploration of how domestic workers navigate pay and working conditions, and how they build community and family networks in shadows of their privileged employers. P/NP or letter grading.

141AX. Chinese American and Pacific Islander Leadership Development Project: Part I: Leadership. (4) [Formerly numbered 141A.] Lecture, three to four hours. Limited to juniors/seniors. First term of two-term series on leadership development, with focus on Asian American, Pacific Islander, and other ethnic communities in Los Angeles. Examination of different approaches and strategies to community building and maintenance. P/NP or letter grading.

141AY. Asian American and Pacific Islander Leadership Development Project: Part II: Field Studies. (4) [Formerly numbered 141B.] Lecture, three hours; fieldwork, three hours. Enforced requisite: course 141AX. Limited to juniors/seniors. Second term of two-term series on leadership development, with focus on Asian American, Pacific Islander, and other ethnic communities in Los Angeles. Examination of different approaches and strategies to community building and maintenance. P/NP or letter grading.

142A. Ethnocommunications I: Introduction to Creating Community Media. (4) Seminar, three hours. Strong verbal communication skills and familiarity with technology required. Introduction to social documentary theory and methodology. Through hands-on production, use of digital technology to tell visual stories, reclaim history, and examine social issues related to diverse peoples, cultures, and communities. Viewing of films, films in progress, and group and individual video projects. Concurrently scheduled with course 242A. P/NP or letter grading.

142B. Ethnocommunications II: Intermediate Creating Community Media. (4) Seminar, three hours. Strong verbal communication skills and familiarity with technology required. Intermediate application of social documentary theory and methodology. Continuing instruction in use of digital technology and concepts. Topics include videography, composition, sound recording, interviewing techniques, editing, and writing treatments. Completion of community-based documentary required. Concurrently scheduled with course 242B. P/NP or letter grading.


143A. Fieldwork in Asian American and Pacific Islander Communities. (4) [Same as Anthropology M138Q.] Lecture, three hours; discussion, one hour. In-depth analysis of key literature about resettlement of Japanese Americans during World War II. Development of original research paper based on primary sources. P/NP or letter grading.

143B. Politics of Race, Ethnicity, Migration, and Multiculturalism in Hawai‘i. (4) Lecture, three hours; discussion, one hour. Critical reflection of issues related to identity, migration, multiculturalism, tourism, and indigenous rights. Field excursions and guest lectures from local community included. Given in Hawai‘i. P/NP or letter grading.

143C. Ethnic Identity and Ethnic Relations in Hawai‘i. (4) [Same as Anthropology M168Q.] Lecture, three hours; discussion, one hour. Continuing construction and expression of ethnic identity in various cultural forms and social contexts in Hawai‘i. Overview of theoretical approaches to and basic concepts in study of ethnic identity and ethnic relations in Hawai‘i. Limited to juniors/seniors. Given in Hawai‘i. P/NP or letter grading.

152A. Race, Gender, Class. (5) [Same as Comparative Literature M175.] Seminar, three hours. Enforced requisite: course 150. Critical examination of historical and contemporary aspects of ethnic identity and ethnic relations in Hawai‘i. Given in Hawai‘i. P/NP or letter grading.

160. Culture, Media, and Los Angeles. (Seminar, three hours) Lecture, four hours; screenings, two hours. Designed for juniors/seniors. Role of media in society and its influence on contemporary cultural environments in Los Angeles; issues of representation as they pertain to race, ethnicity, gender, and sexuality. P/NP or letter grading.

161. Ethnic, Cultural, and Gender Issues in American Health Care Systems. (4) [Same as Sociology M110.] Lecture, three hours. Designed for juniors/senior. Introduction to study of gender, ethnicity, and cultural diversity related to health status and health care, from a sociohistorical and cross-cultural perspective. Limited to juniors/senior. P/NP or letter grading.

162. Class and Gender in Care Work. (4) [Same as Chicana/o and Central American Studies M128B, Gender Studies M140C, and Labor Studies M143.] Lecture, three hours; discussion, one hour. Examination of how gender, race, class, and social status shape domestic labor in U.S. Examination of domestic worker experiences through film, fiction, and tradi- tional scholarship. Examination of domestic work in high demand, who employs domestic workers, and why immigrants and women of color make up large percentage of this workforce. Exploration of how domestic workers navigate pay and working conditions, and how they build community and family networks in shadows of their privileged employers. P/NP or letter grading.

163. Worker Center Movement: Next Wave Organizing for Justice for Immigrant Workers. (4) [Formerly numbered 141AX.] Lecture, fieldwork, four hours. Enforced requisite: course C141B. Advanced application of social documentary theory and methodology. Continuing instruction in use of digital video technology, and group and individual video projects. Concurrently scheduled with course 242A. P/NP or letter grading.

164. Women, Violence, Globalization: India, Philippines, Singapore, Vietnam. (4) [Same as Gender Studies M154A.] Lecture, fieldwork, four hours. Study of various forms of violence done on women not only in and of themselves but in light of larger systems of oppression, with focus on Philippines, Vietnamese, Singaporean, and South Asian cultural contexts. P/NP or letter grading.

165. Race, Gender, Class. (5) [Same as Comparative Literature M175.] Seminar, three hours. Theoretical and literary readings combined to explore the main aspects of social and cultural experience (race, gender, class) as separate yet interrelated spheres affecting both minority and majority populations in U.S. Examination of these issues from comparative perspectives. P/NP or letter grading.

166A. Immigrant Rights, Labor, and Higher Education. (4) [Same as Chicana/o and Central American Studies M156A and Labor Studies M166A.] Lecture, three hours; discussion, one hour. New immigrant rights movement, with particular attention to labor and higher education. Overview of history of immigrant rights movement and examination of development of
coalition efforts between labor movement and immigrant rights movement nationally and locally. Special focus on issues of immigrant students in higher education, changes facing undocumented immigrant students, and legislative and policy issues that have emerged. Students conduct oral histories, family histories, research on immigration and immigrant rights, write poetry and spoken word about immigrant experience, and develop study papers on the political and socioeconomic factors that shape relations between China, Hong Kong, and Taiwan and U.S. Examination of impact of relationships in Pacific Rim and Chinese and their communities. P/NP or letter grading.

171B. Critical Issues in U.S.-Japan Relations. (4) Lecture, three hours. Not open to freshmen. Critical examination of U.S. involvement in Japan, including study of historical, cultural, political, and socioeconomic factors that shape relations between Japan and U.S. Examination of impact of relationships in Pacific Rim and Japanese and their communities. P/NP or letter grading.


171D. Critical Issues in U.S.-Philippine Relations. (4) (Same as History M144C) Lecture, three hours; discussion, one hour (when scheduled). Recommended preparation: History 176A, 176B, 176C. Designed for juniors/seniors. Examination of complex interrelationships of race, globalization, Philippine nationalism, history of Filipinos and Philippino diaspora in 20th century. P/NP or letter grading.


171F. U.S. Empire in Southeast Asia. (4) Seminar, three hours. Limited to juniors/seniors. Interdisciplinary examination of U.S. Empire to Southeast Asia and conditions that led to migration of refugees from Laos, Cambodia, and Vietnam to U.S. with focus on settler colonialism, imperialism, and global warfare. P/NP or letter grading.

172A. Indian Identity in U.S. and Diaspora. (4) (Same as History M174G) Lecture, three hours; discussion, one hour (when scheduled). Examination of race, socially constructed category, from anthropological perspective. Consideration of development of racial categories over time and in different regions, racial passing, multiracial identity in U.S., whiteness, race in popular culture, and race and identity. P/NP or letter grading.

172B. Gender in South Asian Communities at Home and Abroad. (4) Examination of centrality of gender to histories and identities of men and women of South Asian affiliation across multiple historical and geopolitical contexts. Focus on colonial South Asia, South Asian diasporas in U.K., South Asian Americans in U.S., and transnational South Asian public cultures. Theoretical approaches to study of South Asians in comparative frame and consideration of how historical perspectives enable revisiting of South Asian American experiences and to rethink relationship between American studies, diaspora studies, and area studies. P/NP or letter grading.

172C. Transnational Bollywood. (4) (Formerly numbered M172C) Lecture, three hours. Study of how popular Bollywood cinema materializes colonial and postcolonial formations pertaining to gender, class and caste. Study of overseas Indian communities; transformations of Hinduism in diaspora; emergence of new diasporic art forms such as bhangra rap and chutney music; relations between Indians and other racial and ethnic communities; and performance of Indian culture; diasporic identities. P/NP or letter grading.

172D. Social Movements in Guam and Pacific. (4) Lecture, three hours. Variable topics in selected issues pertaining to transnationalism and diasporas. May be repeated for credit with topic change. P/NP or letter grading.

175A. Topics in Comparative Race, Ethnicity, Gender, and Sexuality. (4) Seminar, three to four hours. Limited to juniors/seniors. Variable topics in selected issues on race, ethnicity, gender, and sexuality from comparative perspective. May be repeated for credit with topic change. P/NP or letter grading.

175B. Topics in Transnationalism and Diasporas. (4) Seminar, three to four hours. Limited to juniors/seniors. Variable topics in selected comparative and international issues pertaining to transnationalism and diasporas. May be repeated for credit with topic change. P/NP or letter grading.


176. Critical Refugee Studies. (4) Lecture, three hours. Not open to freshmen. Critical examination of how refugees are represented in government and popular media, and how refugees re-produce their own cultural production. Rather than focus on refugee as victim, study centers refugee as subject of knowledge production for critical analyses of war, empire, militarism, and human rights. P/NP or letter grading.

M179. Asian Community: Border-Crossing, Diasporic Formation, and Social Transformation. (4) (Same as Sociology M139) Lecture, three hours; discussion, one hour. Examination of critical issues facing Asian community due to globalization and international migration, through social science lens of migration studies and diaspora studies. Examination of how movements of people, ideas, capital, and goods create new forms and patterns of diasporic formation, integration, and social transformation at individual, group, and societal levels in non-Western contexts. Students engage in intellectually stimulating discussions and debates about (1) student public and immigrant integration in Asian world; and on anxieties, tensions, conflicts, and accommodation in age of globalized world. Students also discuss challenges, possibilities, and opportunities of building cohesive Asian community. P/NP or letter grading.

185. Capstone Community-Based Research. (4) Seminar, three hours; fieldwork, three hours. Limited to senior departmental majors and minors. Designed to serve as complement to service learning requirement for major and minor and may be used to fulfill...
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capstone requirement for major and minor. Students work as research team, are matched with one or more community groups, and must complete minimum of 40 fieldwork hours. Duties and responsibilities correlate determined by instructor, students, and sponsoring organizations. Readings determined in consultation with instructor. Letter grading.

186. Capstone Research Seminar. (4) Seminar, three hours. Limited to senior departmental majors and minors. Synthesis and application of knowledge students have acquired through prior departmental courses so they can conduct in-depth research or creative-expressive projects. May vary by instructor and term. Students pursue independent work related to course theme with guidance from instructor, then share and critique other student work in progress. Letter grading.

187A. Special Courses in Research Methodologies. (4) Lecture, three hours; discussion, one hour (when scheduled). Limited to juniors/seniors. Variable topics in multidisciplinary research methodologies in Asian American studies. May be repeated for credit with topic change. P/NP or letter grading.

187B. Special Courses in Asian American Themes. (4) Lecture, three hours; discussion, one hour (when scheduled). Limited to juniors/seniors. Variable topics in historical and contemporary issues pertaining to different Asian-origin subgroups and their respective communities. May be repeated for credit with topic change. P/NP or letter grading.

187C. Special Courses in Asian American Populations and Communities. (4) Lecture, three hours; discussion, one hour (when scheduled). Limited to juniors/seniors. Variable topics in historical and contemporary issues pertaining to different Asian-origin subgroups and their respective communities. May be repeated for credit with topic change. P/NP or letter grading.

188A. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. Letter grading.


188C. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced corequisite: course 188B. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE 88S course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through additional readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with course instructor to explore topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. Letter grading.

191A. Topics in Research Methodologies. (4) Seminar, three to four hours. Limited to juniors/seniors. Variable topics in multidisciplinary research methodologies in Asian American studies. May be repeated for credit with topic change. P/NP or letter grading.

191B. Topics in Asian American Themes. (4) Seminar, three to four hours. Limited to juniors/seniors. Variable topics in selected Asian American themes, including issues in cultural formation, religion, education, social class, economic development, social movement, politics, and public policy. May be repeated for credit with topic change. P/NP or letter grading.

191C. Topics in Asian American Populations and Communities. (4) Seminar, three to four hours. Limited to juniors/seniors. Variable topics in historical and contemporary issues pertaining to different Asian-origin subgroups and their respective communities. May be repeated for credit with topic change. P/NP or letter grading.

191F. Topics in Asian American Literature. (5) (Same as English M191C.) Seminar, three or four hours. Enforced requisite: English Composition 3 or 3H. Variable specialized studies course in Asian American Literature. Topics may include genres (autobiography, novel, poetry, short fiction, or drama); specific national communities, such as Korean Americans; themes of transnational migration; cross-cultural, interdisciplinary, or international negotiation; and gender and queer politics. Reading, discussion, and development of culminating research project. May be repeated for credit with topic change. P/NP or letter grading.

192. Undergraduate Practicum in Asian American Studies. (1 to 4) Tutorial, 1 to 18 hours. Limited to juniors/seniors. Training and supervised practicum for advanced undergraduate students in Asian American studies courses. Students assist in preparation of materials for innovative class projects with guidance of faculty members in small course settings. No more than 4 units may be applied toward major; units applied must be taken for letter grade. May be repeated for credit. P/NP or letter grading.

195. Community or Corporate Internships in Asian American Studies. (4) Tutorial, two hours; fieldwork, eight hours. Requisites: courses 10 or 10W, and 20. Limited to juniors/seniors. Internship in supervised setting in community agency or business. Students meet on regular basis with instructor and provide periodic reports of their experience. May be repeated for credit. Individual contract with supervising faculty member required. Letter grading.

195CE. Comparative Approaches to Community and Corporate Internships. (4) (Same as African American Studies M195CE, American Indian Studies M195CE, Chicana/o Studies M195CE, and Gender Studies M195CE) Tutorial, one hour; fieldwork, eight to 10 hours. Limited to juniors/seniors. Internship in corporate, governmental, or nonprofit setting. Coordination through Center for Community Learning. Comparative study of race, gender, and indigeneity in relation to contemporary workplace dynamics. Students complete weekly written assignments, attend biweekly meetings with graduate student coordinator, and write final research paper. Faculty sponsor and graduate student coordinator construct series of reading assignments that examine issues related to internship site. Individual contract with supervising faculty member required. P/NP or letter grading.

196. Research Apprenticeship in Asian American Studies. (2 to 4) Tutorial, three hours per week per unit. Limited to junior/senior-level research apprenticeship for upper division students under guidance of faculty mentor to learn skills and techniques. May not be applied toward departmental major or minor requirements. May be repeated for credit. Individual contract required. P/NP or letter grading.

197. Individual Studies in Asian American Studies. (2 to 4) Tutorial. Three hours. Requisites: course 10 (or 10W) or 20 or comparable knowledge in Asian American studies, 3.0 grade-point average or better. Limited to juniors/seniors. Directed reading of scholarly work or supervised research between student and faculty member. No original research or project expected, but tangible evidence of mastery of subject matter required. May be repeated for maximum of 8 units. Individual contract required. P/NP or letter grading.

198A. Honors Research in Asian American Studies. (4) Tutorial, three to four hours. Requisites: two courses from 10 (or 10W), 20, and 30 (or 30W) and one course from 104A through M108, 187A, or 191A. Introduction to research techniques and applications of methodologies in study of Asians and Pacific Islanders in U.S. Development of honors thesis or comprehensive research project under direct supervision of faculty member. May be repeated for credit. Individual contract required. Letter grading.

198B-198C. Honors Research in Asian American Studies. (4) Tutorial, three hours. Requisite: course 198A. Course 198B is requisite to 198C. Development and completion of honors thesis or comprehensive research project under direct supervision of faculty member. May be repeated for credit. Individual contract required. In Progress (198B) and letter (198C) grading.

199. Directed Research or Senior Project in Asian American Studies. (2 to 4) Tutorial, three hours. Preparation: 3.0 overall grade-point average. Requisites: courses 10 (or 10W) and 20 or comparable knowledge in Asian American Studies. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating research paper or project report required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

200A. Historical Perspectives on Asian American and Pacific Islander American Communities. (4) Seminar, three hours. Designed for graduate students. Examination of critical issues in Asian and Pacific Islander American history and historiography. Introduction to research in archival and/or oral history methods. S/U or letter grading.

200B. Critical Approaches Emerging Issues in Asian and Pacific Islander American Studies. (4) Seminar, three hours. Designed for graduate students. Examination of emergent issues in Asian and Pacific Islander American communities, using selected theoretical approaches. Introduction to research in social scientific methods such as ethnography, participant observation, interviewing, survey development, or community-based research. S/U or letter grading.


203. Asian American Research Methods. (4) Seminar, three hours. Introduction to empirical research methods, stressing uses and relevancy in research with ethnic minority populations. Review of characteristics and logical processes of research and applicability of scientific and scholarly inquiry in advancing knowledge. S/U or letter grading.

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ASIAN LANGUAGES AND CULTURES

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Sung-Ock S. Sohn, PhD
Thomas E. Whitaker, PhD
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Robert C. Epp, PhD
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Yinghui Wu, PhD
Juniko Yamazaki, PhD

Senior Lecturer SOE
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Jennifer J. Jung-Kim, PhD
Yumiko Kawanishi, PhD
Jae-eun I. Mitsunaga, PhD
Thu-Ba Nguyen-Hoai, PhD
Yoko Nogami, MA
Yan Shen, MA
Michelle M. Fu Smith, PhD
Xiaoxin Sun, BA
Asako H. Takakura, EdD


297A. Philosophy of Asian American Studies. (3) Seminar, three hours. Designed for graduate students. Selected topics in Asian American studies. S/U or letter grading.

297B. Asia and Asia Pacific. (3) Seminar, three hours. Emphasis on Asia as main regional source for international migrants. Topics include patterns and theories of international migration and their relevance to Asian experience, sending and receiving country perspectives, research and policy issues. S/U or letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, three hours. Preparation: apprentice personnel development as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. Unit credit may be applied toward full-time equivalence but not toward 11-course requirement for MA. May be repeated for credit. S/U grading.

490. Writing Workshop for Graduate Students. (2) Lecture, one hour; discussion, one hour. Practice in writing reports, grant proposals, abstracts, theses, and article-length research papers. Analyzing rhetorical and stylistic features of essays in various Asian American journals helps students improve both their prose style and editorial abilities. Four units may be applied toward MA degree requirements. May be repeated once for credit. S/U grading.

495. Supervised Teaching of Asian American Studies. (2 to 8) Seminar, three hours. Required of all new teaching assistants. Special course for teaching assistants designed to deal with problems and techniques for teaching introductory Asian American studies courses. Unit credit may be applied toward full-time equivalence but not toward course requirements for MA. S/U grading.

596. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. S/U grading.

597. Research for and Preparation of MA Capstone. (2 to 8) Tutorial, three hours. Limited to graduate students. Preparation and research for MA capstone. May be repeated for credit. S/U grading.


215A-215B. Asian American Jurisprudence. (215A: 3 or 4) Lecture, three hours. Course 215A is enforced requisite to 215B. Designed for graduate students. Through judicial opinions, commentary, and historical readings, examination of how American law has shaped demographics, experiences, and possibilities of Asian Americans and also how they shaped American law as well. Concurrently scheduled with Law 315. In Progress (215A) and S/U or letter (215B) grading.

222. Colonialism and Law in Pacific. (4) Seminar, three hours. Reading seminar on broad topics of colonialism and law. Survey of anthropological, historical, and legal studies of ways in which colonialism and law operate as methods of social control, order, and surveillance in Asia and Pacific. S/U or letter grading.


M239. Race, Ethnicity, and Culture as Concepts in Practice and Research. (4) (Same as Community Health Sciences M239.) Seminar, three hours. Integration of cross-cultural findings in healthcare with current American (U.S.) healthcare system paradigms to facilitate designing culturally based public health programs and train culturally competent practitioners. Letter grading.

C242A. Ethnocommunications I: Introduction to Creating Community Media. (4) Seminar, three hours. Strong verbal communication skills and familiarity with technology required. Introduction to social documentary theory and methodology. Through hands-on production, use of digital video to tell visual stories, re-claim and examine social issues related to diverse peoples, cultures, and communities. Viewing of films and interactive media for critique and discussion, guest speakers, basic instruction in use of digital video technology, and group and individual video projects. Concurrently scheduled with course C142A. S/U or letter grading.

C242B. Ethnocommunications II: Intermediate Creating Community Media. (4) Seminar, three hours. Strong verbal communication skills and familiarity with technology required. Intermediate application of social documentary theory and methodology. Use of digital video to create new approaches to visual storytelling, reclaim history, and examine social issues related to diverse peoples, cultures, and communities. Continuing instruction in use of digital technology and concepts. Topics include videography, composition, sound recording, interviewing techniques, editing, and writing treatments. Completion of community-based documentary required. Concurrently scheduled with course C142B. S/U or letter grading.


M260. Topics in Asian American Literature. (4) (Same as English M260A.) Seminar, three hours. Graduates seminar that examines and critically evaluates writings of Asian Americans. May be repeated for credit. S/U or letter grading.

M261. Theorizing Third World. (4) (Same as Comparative Literature M274H.) Seminar, three hours. Investigation of politics of power, gender, and race in complex relationships of so-called First World and Third World, using both theoretical and textual approaches. S/U or letter grading.
Overview
The Department of Asian Languages and Cultures offers a wide range of courses in the languages, literatures, religions, and cultural heritage of China, Japan, and Korea, as well as South and Southeast Asia. The department offers training in many specialized fields such as archaeology, film, folklore, history, linguistics, literature, mythology, religious studies, and cultural studies. Courses prepare students for careers in business, government service, international relations, journalism, law, publishing, teaching, and academic professions.

Courses for Nonmajors
The department offers many courses in which knowledge of Asian languages is not required. A current list is available on the Registrar’s course descriptions web page.

Undergraduate Study
For undergraduates, the department offers majors that combine language study with courses taught in English that examine the rich cultural heritage of China, Japan, and Korea, as well as South and Southeast Asia. The majors also offer opportunities for education abroad in an Asian country. The language courses aim to develop the four skills of speaking, aural comprehension, reading, and writing in a balanced and mutually supportive manner. The lecture and seminar courses aim to develop critical thinking and writing skills through in-depth study of a culture within a broader historical and comparative context.

Undergraduate majors who wish to pursue graduate degrees are encouraged to apply for admission to the departmental honors program. Students considering a major or minor in the department should consult with the departmental undergraduate adviser as soon as possible in their university career, but in no case later than the point at which they are about to begin taking upper-division courses. Students should select courses to fulfill major or minor requirements in consultation with the undergraduate adviser. The approved list of courses for each category of major or minor requirements is available in the department office (290 Royce Hall) and on its website.

Undergraduate Policies
Placement in Language Courses
Students are not placed in Chinese, Filipino, Hindi-Urdu, Indonesian, Japanese, Korean, Thai, and Vietnamese language courses automatically according to their years of previous study. Students with any prior knowledge of study of an Asian language who wish to take courses in that language at UCLA are required to take the appropriate departmental language placement examination (see the Schedule of Classes or department website for more information). The examination determines which course is most appropriate for the student’s current level of proficiency. Students who have obtained college credit for Asian language courses may not repeat those same courses for credit. Prospective majors who place out of the upper-division modern language requirement are expected to substitute an equivalent number of other units to be selected in consultation with the departmental undergraduate adviser.

Language Acquisition Courses
No credit is allowed for completing a less advanced course after successful completion of a more advanced Asian language course with focus on conversation, grammar, and/or composition.

Graduate Study
At the graduate level, the department offers highly selective PhD degree programs that train research scholars for academic careers in various fields of Asian culture, including literature, linguistics, film, religion, and history.

Undergraduate Majors
Asian Humanities BA

Study Abroad
Early acquisition of Asian language skills aids in the timely completion of major requirements and enriches appreciation of Asian cultures. Students are encouraged, therefore, to complete up to a year of language study in approved programs of study abroad.

Learning Outcomes
The Asian Humanities major has the following learning outcomes:

- Identification of major elements of cultures in Asia, with particular attention to chosen regions of expertise
- Assessment of the social contours of a given Asian society, and explanation of ways in which dynamics within communities and other social structures shape the course of events
- Understanding of the role that language and literature play in reflecting and influencing Asian societies, across time and different literary genres
- Formulation of effective written and oral arguments that address important themes and issues in Asian arts and cultures, in ways that are historically appropriate and relevant to particular contexts
- Conduct research on Asian languages, literatures, and other cultural elements, making effective and critical use of primary and secondary source materials
- Appreciation of the central place of religion in Asian cultures, with focus on chosen region of expertise and tradition of focus

Entry to the Major

Transfer Students
Transfer applicants to the Asian Humanities major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of Chinese, Japanese, Korean, Filipino/Tagalog, Hindi, Indonesian, Thai, or Vietnamese and either one civilization course on Asia or one introduction to Buddhism course or one introduction to Asian religions course.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major
Required: Completion of the intermediate sequence in one Asian language offered by the department (e.g., Chinese 6, 10, Filipino 6, Hindi-Urdu 100C, Indonesian 6, Japanese 6, 10, Korean 6, 10, Thai 6, Vietnamese 6, or equivalent) and Asian 30 or one civilization course (e.g., Chinese 50, Japanese 50, 70, Korean 50) or one introduction to religions course (e.g., Asian M60, M60W, M61, Chinese M60, M60W, Korean M60, South Asian M60, Southeast Asian M60) or one culture course (e.g., Japanese 75, 80, Korean 40, 70, 80) within the department.

The Major
Required: Three upper-division language courses in one Asian language offered by the department and eight upper-division electives within the department, including at least one course from at least four of the following areas: Asia, China, Japan, Korea, South Asia, or Southeast Asia.

Honors Program
The honors program is a three-term sequence (Asian 198A-198B-198C), taken in addition to requirements for the major, that culminates in the submission of a 40- to 60-page thesis. In most circumstances courses 198A-198B-198C are taken in the senior year (fall, winter, and spring quarters), although students also have the option of taking course 198A in spring quarter of their junior year. Students are expected to use an Asian language in their research, with the scope of language work to be determined in consultation with their faculty adviser.

Policies

Honors Program
Admission
The honors program is open to majors with a 3.5 grade-point average in upper-division courses in the major and a 3.0 overall GPA. Students should apply for admission by spring quarter of their junior year and, at the time of admission, must have completed at least two upper-division courses in their major. For application forms and more information, contact the departmental undergraduate adviser.
Requirements

Highest honors, honors, or no honors are awarded as determined by the faculty thesis director and the departmental honors committee.

To qualify for graduation with departmental honors, students must (1) complete all requirements for the major, (2) have a cumulative grade-point average of 3.5 or better in upper-division courses required for the major and an overall GPA of 3.0 or better, and (3) complete Asian 198A-198B-198C.

To qualify for graduation with departmental highest honors, students must (1) complete all requirements for the major, (2) have a cumulative grade-point average of 3.8 or better in upper-division courses required for the major, and an overall GPA of 3.5 or better, and (3) complete Asian 198A-198B-198C with a grade of A in each course.

Asian Languages and Linguistics BA

Study Abroad

Early acquisition of Asian language skills aids in the timely completion of major requirements and enriches appreciation of Asian cultures. Students are encouraged, therefore, to complete up to a year of language study in approved programs of study abroad.

Learning Outcomes

The Asian Languages and Linguistics major has the following learning outcomes:

- Identification of major linguistic features of Asian languages, with attention to chosen region of expertise
- Demonstrated working knowledge of one or two Asian languages
- Demonstrated competency in fieldwork with Asian languages in their natural social and cultural contexts
- Demonstrated familiarity with current theories of language pedagogy with practical skills in classroom teaching of an Asian language
- Understanding of the interdependency and dynamic relationship between language, society, culture, and social interaction in the context of Asian languages across time and different modes of communication
- Conduct research and formulate effective written and oral arguments that address important themes and issues in languages and cultures of Asia

Entry to the Major

Transfer Students

Transfer applicants to the Asian Languages and Linguistics major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of Chinese, Japanese, Korean, Filipino/Tagalog, Hindi, Indonesian, Thai, or Vietnamese and either one Asian language and culture course or one civilization course on Asia or one introduction to Buddhism course or one introduction to Asian religions course or one introduction to linguistic analysis course.

The Major

Required: Eleven courses as follows: (1) five upper-division language courses in one Asian language offered by the department, or three upper-division language courses in one Asian language offered by the department and two upper-division language courses in a different Asian language offered by the department, (2) Asian 100 and 104, (3) two Asian linguistics courses selected from Asian CM124, Chinese 103, C120, Japanese M120, CM122, CM123, CM127, Korean M120, 124, South Asian 170, and (4) two upper-division electives within the department or from the Linguistics Department.

Honors Program

The honors program is a three-term sequence (Asian 198A-198B-198C), taken in addition to requirements for the major, that culminates in the submission of a 40- to 60-page thesis. In most circumstances courses 198A-198B-198C are taken in the senior year (fall, winter, and spring quarters), although students also have the option of taking course 198A in spring quarter of their junior year. Students are expected to use an Asian language in their research, with the scope of language work to be determined in consultation with their faculty adviser.

Policies

Preparation for the Major

All preparation courses must be completed with a C or better grade. A minimum 2.5 grade-point average is required for both (1) the language and (2) Linguistics 20 and the civilization/religion course.

Honors Program

Admission

The honors program is open to majors with a 3.5 grade-point average in upper-division courses in the major and a 3.0 overall GPA. Students should apply for admission by spring quarter of their junior year and, at the time of admission, must have completed at least two upper-division courses in their major. For application forms and more information, contact the departmental undergraduate adviser.

Asian Religions BA

Study Abroad

Early acquisition of Asian language skills aids in the timely completion of major requirements and enriches appreciation of Asian cultures. Students are encouraged, therefore, to complete up to a year of language study in approved programs of study abroad.

Learning Outcomes

The Asian Religions major has the following learning outcomes:

- Appreciation of the central place of religion in Asian cultures, with focus on chosen region of expertise and tradition of focus
- Understanding of the crucial role of language and written documents in the development of religious beliefs and practices
- Clear and effective writing on topics in the field, in a way that is sensitive to the complex dynamics and transformations of religion across Asian cultural boundaries
- Formulation of research projects using primary and secondary source materials, making effective and critical use of primary and secondary source materials
- Demonstrated working knowledge of one Asian language at an intermediate level
- Demonstrated basic exposure to the Buddhist argot of one Asian language

Entry to the Major

Transfer Students

Transfer applicants to the Asian Religions major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of Chinese, Japanese, Korean, Filipino/Tagalog, Hindi, Indonesian, Thai, or Vietnamese, or one year of Sanskrit, and one introduction to Buddhism course or one introduction to Asian religions course.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.
**Requirements**

**Preparation for the Major**

*Required:* Completion of the intermediate sequence in one Asian language offered by the department (e.g., Chinese 6, 10, Filipino 6, Hindi-Urdu 100C, Indonesian 6, Japanese 6, 10, Korean 6, 10, Thai 6, Vietnamese 6, or equivalent) and Asian 30 or one introduction to religions course from Asian M60, M60W, M61, Chinese M60, M60W, Korean M60, South Asian M60, or Southeast Asian M60.

**The Major**

*Required:* Three upper-division language courses in one Asian language offered by the department; six upper-division Asian religious courses within the department, including at least one course each concerning religions in China, Japan, Korea, and either South Asia or Southeast Asia; and two electives within the department.

**Honors Program**

The honors program is open to majors with a 3.0 overall GPA. Students are encouraged, therefore, to complete up to a year of language study in approved programs of study abroad.

**Learning Outcomes**

The Chinese major has the following learning outcomes:

- Advanced ability to speak, read, and write modern Chinese
- Demonstrated competence in reading classical Chinese
- Broad knowledge of Chinese cultural, religious, and/or literary history from early periods to the modern era
- Demonstrated disciplinary familiarity in analysis of texts, objects, and historical trends
- Clear and effective writing on topics in Chinese civilization, in ways that draw upon the complex dynamics and cultural transformations across the history of China
- Formulation of research projects that engage critically and thoughtfully with primary and secondary materials

**Entry to the Major**

**Transfer Students**

Transfer applicants to the Chinese major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of Chinese and one Chinese civilization course.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

**Requirements**

**Preparation for the Major**

*Required:* Chinese 6 or 6A or 10 or equivalent, and one course from 50, M60, M60W, 70, 70W, or Asian 30.

**The Major**

*Required:* Eleven courses as follows: (1) five language courses selected from either modern Chinese (Chinese 100A and 100B and 100C or 100I, 101A, 101B, 102A, C107A, C120, 130A or 130B, 135) or from premodern Chinese (110A, 110B, 110C, 140A through 140D, 165)—at least two language courses must be in the premodern language or texts, (2) one literature course selected from 130A, 130B, 131, 135, 140A through 140D, C150A, C150B, 151, 152, or M155, (3) three elective courses on China selected from C138, 139, 154, 155, C156, CM160, 165, 174, C175, 176, 180, 184, 185, 186, 187, 191A, C191B, or from items 1 and 2 above not used to fulfill another requirement, and (4) two additional upper-division elective courses within the department but outside China.

**Honors Program**

The honors program is a three-term sequence (Asian 198A-198B-198C), taken in addition to requirements for the major, that culminates in the submission of a 40- to 60-page thesis. In most circumstances courses 198A-198B-198C are taken in the senior year (fall, winter, and spring quarters), although students also have the option of taking course 198A in spring quarter of their junior year. Students are expected to use an Asian language in their research, with the scope of language work to be determined in consultation with their faculty adviser. Highest honors, honors, or no honors are awarded as determined by the faculty thesis director and the departmental honors committee.

**Policies**

**Honors Program**

**Admission**

The honors program is open to majors with a 3.5 grade-point average in upper-division courses in the major and a 3.0 overall GPA. Students should apply for admission by spring quarter of their junior year and, at the time of admission, must have completed at least two upper-division courses in their major. For application forms and more information, contact the departmental undergraduate adviser.

**Requirements**

Highest honors, honors, or no honors are awarded as determined by the faculty thesis director and the departmental honors committee.

To qualify for graduation with departmental honors, students must (1) complete all requirements for the major, (2) have a cumulative grade-point average of 3.5 or better in upper-division courses required for the major and an overall GPA of 3.0 or better, and (3) complete Asian 198A-198B-198C.

To qualify for graduation with departmental highest honors, students must (1) complete all requirements for the major, (2) have a cumulative grade-point average of 3.8 or better in upper-division courses required for the major and an overall GPA of 3.5 or better, and (3) complete Asian 198A-198B-198C with a grade of A in each course.

**Chinese BA**

**Study Abroad**

Early acquisition of Asian language skills aids in the timely completion of major requirements and enriches appreciation of Asian cultures. Students are encouraged, therefore, to complete up to a year of language study in approved programs of study abroad.

**Learning Outcomes**

The Chinese major has the following learning outcomes:

- Demonstrated advanced written and oral knowledge of the Japanese language
- Demonstrated broad knowledge of Japanese cultural history from ancient times to the present

**Japanese BA**

**Study Abroad**

Early acquisition of Asian language skills aids in the timely completion of major requirements and enriches appreciation of Asian cultures. Students are encouraged, therefore, to complete up to a year of language study in approved programs of study abroad.

**Learning Outcomes**

The Japanese major has the following learning outcomes:

- Demonstrated advanced written and oral knowledge of the Japanese language
- Demonstrated broad knowledge of Japanese cultural history from ancient times to the present
Entry to the Major

Transfer Students

Transfer applicants to the Japanese major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of Japanese and one Japanese civilization or images of Japan course.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major

Required: Japanese 6 or 10 or equivalent, and one course from 50, 70, 75, 80, Asian 30.

The Major

Required: Eleven courses as follows: (1) five language courses in modern or premodern language or texts selected from Japanese 100A and 100B and 100C or 100S, 100R, 101A and 101B and 101C or 101S, 103A, 103B, 104, 105A, 105B, 110A, 110B, M120, CM123, 130A, 130B, 140A, 140B, 140C, C149, 165, (2) one literature course selected from C150, 151, 154, M156, 157, C159, 170, 172, 174, or 191A, (3) three elective courses on Japan selected from Japan 100A, 100B, 100C, 101A and 101B or 101I, 102A, 102B, 102C, 103A, 103B, 104A, 104B, 104C, C105A, C105B, C105C, 106A, 106B, 106C, 107A, 107B, 107C, CM120, 124, 165, 176, 178, (2) one literature course selected from 130A, 130B, C150, or C151, (3) three elective courses on Korea selected from CM127, C149, 154, 155, CM160, 165, 172, 175, C177, 180A, 180B, 180C, 181, 182, 183, 184A, 184B, 185, M186, 187, 191A, 191B, or from items 1 and 2 above not used to fulfill another requirement, and (4) two additional upper-division elective courses within the department but outside Japan.

Honors Program

The honors program is a three-year sequence (Asian 198A-198B-198C), taken in addition to requirements for the major, that culminates in the submission of a 40- to 60-page thesis. In most circumstances courses 198A-198B-198C are taken in the senior year (fall, winter, and spring quarters), although students also have the option of taking course 198A in spring quarter of their junior year. Students are expected to use an Asian language in their research, with the scope of language work to be determined in consultation with their faculty adviser.

Policies

Honors Program

Admission

The honors program is open to majors with a 3.5 grade-point average in upper-division courses in the major and a 3.0 overall GPA. Students should apply for admission by spring quarter of their junior year and, at the time of admission, must have completed at least two upper-division courses in their major. For application forms and more information, contact the departmental undergraduate adviser.

Requirements

Highest honors, honors, or no honors are awarded as determined by the faculty thesis director and the departmental honors committee.

To qualify for graduation with departmental honors, students must (1) complete all requirements for the major, (2) have a cumulative grade-point average of 3.5 or better in upper-division courses required for the major and an overall GPA of 3.0 or better, and (3) complete Asian 198A-198B-198C.

To qualify for graduation with departmental highest honors, students must (1) complete all requirements for the major, (2) have a cumulative grade-point average of 3.8 or better in upper-division courses required for the major and an overall GPA of 3.0 or better, and (3) complete Asian 198A-198B-198C.

Entry to the Major

Transfer Students

Transfer applicants to the Korean major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of Korean and one Korean civilization course.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major

Required: Korean 6 or 6A or 10 or equivalent, and one course from 40, 50, M60, 70, 80, Asian 30.

The Major

Required: Eleven courses as follows: (1) five language courses selected from Korean 100A, 100B, 100C, 101A and 101B or 101I, 102A, 102B, 102C, 103A, 103B, 104A, 104B, 104C, C105A, C105B, C105C, 106A, 106B, 106C, 107A, 107B, 107C, CM120, 124, 165, 176, 178, (2) one literature course selected from 130A, 130B, C150, or C151, (3) three elective courses on Korea selected from CM127, C149, 154, 155, CM160, 165, 172, 175, C177, 180A, 180B, 180C, 181, 182, 183, 184A, 184B, 185, M186, 187, 191A, 191B, or from items 1 and 2 above not used to fulfill another requirement, and (4) two additional upper-division elective courses within the department but outside Korea.

Honors Program

The honors program is a three-term sequence (Asian 198A-198B-198C), taken in addition to requirements for the major, that culminates in the submission of a 40- to 60-page thesis. In most circumstances courses 198A-198B-198C are taken in the senior year (fall, winter, and spring quarters), although students also have the option of taking course 198A in spring quarter of their junior year. Students are expected to use an Asian language in their research, with the scope of language work to be determined in consultation with their faculty adviser.

Policies

Honors Program

Admission

The honors program is open to majors with a 3.5 grade-point average in upper-division courses in the major and a 3.0 overall GPA. Students should apply for admission by spring quarter of their junior year and, at the time of admission, must have completed at least two upper-division courses in their major. For application forms and more information, contact the departmental undergraduate adviser.

Requirements

Highest honors, honors, or no honors are awarded as determined by the faculty thesis director and the departmental honors committee.

To qualify for graduation with departmental honors, students must (1) complete all requirements for the major, (2) have a cumulative grade-point average of 3.5 or better in upper-division courses required for the major and an overall GPA of 3.0 or better, and (3) complete Asian 198A-198B-198C.

To qualify for graduation with departmental highest honors, students must (1) complete all requirements for the major, (2) have a cumulative grade-point average of 3.8 or better in upper-division courses required for the major and an overall GPA of 3.0 or better, and (3) complete Asian 198A-198B-198C.
Studies major with 90 or more units must complete as many of the following introductory courses with at least a 2.0 grade-point average. Students must have an overall GPA of 3.5 or better, and (3) complete Asian 198A-198B-198C with a grade of A in each course.

Southeast Asian Studies BA

Study Abroad
Early acquisition of Asian language skills aids in the timely completion of major requirements and enriches appreciation of Asian cultures. Students are encouraged, therefore, to complete up to a year of language study in approved programs of study abroad.

Learning Outcomes
The Southeast Asian Studies major has the following learning outcomes:

- Appreciation of the region’s broader socio-cultural and historical patterns
- Understanding of commonalities of societies and peoples across region
- Appreciation of distinctive elements, particularly between island and mainland populations
- Understanding of cultural, historical, and social contours of a particular Southeast Asian country
- Ability to assess social contours of Southeast Asian societies broadly
- Understanding of ways in which dynamics within communities and other social structures shape the course of events
- Understanding and assessment of distinct challenges that have shaped the region’s pre-modern historical trajectory
- Understanding and assessment of complex challenges that face contemporary societies in the region
- Appreciation of the central place of religion, religious diversity, and religious conflict in Southeast Asian societies
- Reading and assessment of cultural documents—literature, oral tales, performances—in their respective sociocultural contexts
- Conduct specialized research on Southeast Asian societies, history, or culture, making effective and critical use of primary and secondary source materials
- Formulation of effective written and oral arguments that address important themes and issues in Southeast Asian arts and cultures, in ways that are historically appropriate and relevant

Entry to the Major

Transfer Students
Transfer applicants to the Southeast Asian Studies major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one year of Filipino/Tagalog, Indonesian, Thai, or Vietnamese; and one course in Asian civilization, Asian languages and cultures, introduction to Asian religions, or introduction to Buddhism.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major
Required: Completion of the intermediate sequence in one Southeast Asian language offered by the department (e.g., Filipino 6, Indonesian 6, Thai 6, Vietnamese 6, or equivalent); Southeast Asian Studies 50; and one religion, literature, or culture course (e.g., Asian 30, Southeast Asian M60, 70, or Vietnamese 40) within the department.

The Major
Required: Eleven courses as follows: (1) one upper-division language course in a Southeast Asian language offered by the department selected from Indonesian 100A, 100B, 100C, Thai 100A, 100B, 100C, or Vietnamese 100A, 100B, 100C; (2) eight upper-division elective courses on Southeast Asia selected from Anthropology 116S, Asian American Studies 123, 125, 133, 134, M164, M171D, 171E, 176, Art History 156, Filipino 170, History 176A, 176B, 176C, 176E, 177A, 177B, 187M, Political Science 158, Southeast Asian Studies C120, 130, 135, C140, C150, 157, 160, 170A, 170B, 170C, Vietnamese CM155, 158A, or 180E; (3) two upper-division electives on other parts of Asia (China, Japan, Korea, South Asia) within the department or offered by another department (History, Geography, Anthropology, Political Science, Asian American Studies).

Policies

Preparation for the Major
Students must complete the preparation courses with at least a 2.0 grade-point average.

The Major
Students may petition to satisfy (1) with an independent study (course 199) with a faculty member or a course in translation where the student’s written work is primarily in the target language.

Undergraduate Minors

Asian Humanities Minor
The Asian Humanities minor is designed to recognize a serious commitment to the study of Asian cultures. It is especially suited for students who wish to augment their major program in the College of Letters and Science with mastery of an Asian language. The lower-division survey course in civilization or religious tradition provides students with an essential introduction to the diverse cultural heritages of Asia. In the upper-division languages courses, students gain advanced skills in speaking, aural comprehension, reading, and writing an Asian language.

Admission
To enter the minor, students must have an overall grade-point average of 2.0 or better, have completed 45 units at UCLA and all lower-division requirements for the minor, and consult with the departmental undergraduate adviser.

The Minor

Required Lower-Division Courses (10 units): Completion of the intermediate sequence in one Asian language offered by the department (e.g., Chinese 6, 10, Filipino 6, Hindi-Urdu 100C, Indonesian 6, Japanese 6, 10, Korean 6, 10, Thai 6, Vietnamese 6, or equivalent) and Asian 30 or one civilization course (e.g., Chinese 50, Japanese 50, Korean 50) or one introduction to religions course (e.g., Asian M60, M60W, M61, Chinese M60, M60W, Korean M60, South Asian M60, Southeast Asian M60) or one culture course (e.g., Japanese 75, 80, Korean 40, 70, 80) within the department.

Required Upper-Division Courses (20 units): Three language courses in one Asian language offered by the department and two electives within the department.

Policies

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor, and at least 16 units must be taken in residence at UCLA.

Each minor course must be taken for a letter grade, and students must have an overall
grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Majors

Asian Languages and Cultures MA, CPhil, PhD

Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Teaching Asian Languages MA

Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Asian

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

M20. Visible Language: Study of Writing. (5) Same as Indo-European Studies M20, Near Eastern Languages M20, Slavic M20, and Southeast Asian M20.) Lecture, three hours; discussion, one hour. Consideration of concrete means of language representation in writing systems. Earliest representations of language known are those of Near East dating to end of 4th millennium BC. While literate civilizations of Egypt, Indus Valley, China, and Mesoamerica left little evidence of corresponding earliest developments, their antiquity and, in case of China and Mesoamerica, their evident isolation mark these centers as loci of independent developments in writing. Basic characteristics of early scripts, assessment of modern alphabetic writing systems, and presentation of conceptual basis of semantic language representation. Origins and development of early non-Western writing systems. How Greco-Roman alphabet arose in 1st millennium BC and how it compares to other modern writing systems. P/NP or letter grading.

30. Languages and Cultures of Asia. (5) Lecture, three hours; discussion, one hour. Comparative perspective on Asian languages, with emphasis on three major East Asian languages—Chinese, Japanese, and Korean—to show what they share and how they differ in terms of linguistic features, historical development, and larger cultural settings in which these three languages are used. P/NP or letter grading.

M60. Introduction to Buddhism. (5) Same as Religion M60A.) Lecture, three hours; discussion, one hour. Not open for credit to students with credit for course M60W. Knowledge of Asian languages not required. General survey of development of Buddhism in India, with focus on those religious doctrines and meditative practices most essential to various Asian traditions of Buddhism. Letter grading.

M60W. Introduction to Buddhism. (5) Same as Religion M60.) Lecture, three hours; discussion, one hour. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Not open for credit to students with credit for course M60. Knowledge of Asian languages not required. Survey of Buddhist worldview and lifestyle, with focus on those religious doctrines and meditative practices most essential to various Asian traditions of Buddhism. Consideration of particular issues and problems involved in study of religion. Satisfies Writing II requirement. Letter grading.

M61. Introduction to Zen Buddhism. (5) Same as Religion M61.) Lecture, three hours; discussion, one hour. Enforced requisite: course M60. Introduction to Zen traditions and to interplay between Zen and other fundamental cultural and religious concerns in East Asia. Topics include role of Zen within Buddhist thought and practice, artistic and literary arts, society, and daily life. Letter grading.

70A-70B-70C. Popular Culture in East Asia. (5-5-5) Lecture, three hours; discussion, one hour. Popular culture in China, Japan, Korea, and Vietnam. Topics include popular language, language, literature, art, cultural material, cinema, and music. Themes include identities, gender, sexuality, and class relations. Letter grading. 70A, Fall; 70B, First; 19th Centuries; 70B, 1085 to 1945; 70C, From 1945.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students of faculty supervision. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

100. Methods in Asian Linguistics. (4) Lecture, three hours; discussion, one hour. Research methodologies for dealing with Asian languages, with emphasis on bibliographical, data, and professional resources, issues in analyzing and presenting language examples, explaining language phenomena beyond what is observed, cross-linguistic comparisons, oral presentation skills, and writing reports in organized ways. P/NP or letter grading.

104. Asian Language Pedagogy. (4) Lecture, three hours; discussion, one hour. Enforced requisite: of all Asian Languages and Linguistics majors. Current issues in teaching Asian languages. Pedagogical grammar, curricular development, social, cultural, and cognitive foundations of Asian language acquisition, best practices in teaching Asian language writing systems, special issues in teaching heritage students, comparisons of K-12 text and college language teaching, assessment, the role of technology, and emerging trends in Asian language teaching. P/NP or letter grading.

120FL. Readings in East Asian Languages. (2) Seminar, two hours. Requisite: Chinese 6 or 6A or 6C or Japanese 6 or 6A or Korean 6 or 6A or 6A. Enforced requisite corequisite is course 120. Additional work in major East Asian languages to enrich and augment work assigned in course 120, including reading, writing, and other exercises in Chinese, Japanese, and Korean. P/NP or letter grading.

121. Field Methods in Asian Languages and Cultures. (4) Lecture, three hours. Field method preperation: instruction; application of methodologies to understand language and culture acquisition by working directly with native speakers of a language and/or through available materials. One language per term to be selected from languages spoken in Southeast Asia, South Asia, and East Asia. May be repeated for credit. P/NP or letter grading.

CM124. Teaching and Learning of Heritage Languages. (4) Same as Near Eastern Languages CM114 and Slavic CM114.) Lecture, three hours. Consideration of issues relevant to heritage language learners (HLLs) and to their instructors. Readings and discussion on such topics as definitions of HLLs and HLLs; linguistic, demographic, sociocultural, and sociopolitical considerations of HLLs, particularly in the context of teaching heritage languages (FLs) to students; institutional and instructor attitudes toward HLLs; impact of student motivation and expectations on HL curriculum and teaching approaches; similarities and differences between HLLs and foreign language learners (FLs) regarding teaching methods and materials; diagnostic testing and needs assessment; use of oral/aural proficiency as a springboard for literacy instruction; optimization of mixed HL and FL classes. Action research component included. Concurrently scheduled with course CM224, P/NP or letter grading.


135. Asian Foodways across Borders. (4) Lecture, two and one half hours. Examination of Asian foodways from 19th century to present, looking at how Asian and Western foods have impacted each other as they cross borders. Consideration of how political, economic, and cultural forces of globalization manifest themselves in everyday life. Focus is on East Asian cuisines, but students are encouraged to incorporate additional information on South and Southeast Asian cuisines. P/NP or letter grading.

151. Buddhist Literature in Translation. (4) Lecture, three hours. Recommended preparation: prior course in Buddhism or traditional Asian religions. Knowledge of Asian languages not required. Readings from variety of Buddhist literature of India and non-Indian origin, with emphasis on key Buddhist themes and critical issues in cross-cultural interpretations of Asian religious texts. Letter grading.

152. Tibetan Buddhism. (4) Lecture, three hours. Consideration of noncanonical Buddhist literature of India and Tibet. Letter grading.

155. Buddhism, Film, and Media. (4) Lecture, three hours; discussion, one hour (when scheduled). Recommended requisite: course M60 (or Religion M60A) or M60W (or Religion M60W). Examination of issues related to Buddhism in globalizing world, with focus on changing and diverse presentations of Buddhism in film, print, and new media. P/NP or letter grading.

158. Sinophone Literature: Theories and Texts. (4) Lecture, three hours. Preparation: one upper-division humanities course. Survey of foundational theories of Sinophone studies concerning issues such as Chineseness, diaspora, ethnicity, identity, and multilingualism. Reading of key Sinophone literary texts from Asia. Letter grading.

161. Topics in Asian Religions. (4) Lecture, three hours; discussion, one hour. Knowledge of Asian languages not required. In-depth examination of selected topics in cross-resource studies of Asia. Topics vary, but may include death, gender, and state and religion. May be repeated for credit with topic change. Letter grading.

162. Buddhist Meditation Traditions. (4) Lecture, three hours; discussion, one hour. Knowledge of Asian languages not required. Survey of theory and practice
of meditation in Buddhism, with emphasis on Thera  
meditation in Buddhism, with emphasis on Thera  
praxis. Letter grading.

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mediation and soteriology, and processes by which  
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stan, Afghanistan, and Central Asia: Introduction.  

Lecture, three hours. Knowledge of Asian lan  
Lecture, three hours. Knowledge of Asian lan  

Pakistan. Topics include archaeological, art historical  
Pakistan. Topics include archaeological, art historical  

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Variable Topics Research Seminars: Life Writ  
Variable Topics Research Seminars: Life Writ  

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Seminar, three hours. Directed as adjunct to under  

189HC. Honors Contracts. (1) Tutorial, three hours.  
189HC. Honors Contracts. (1) Tutorial, three hours.  

190. Research Colloquia in Asian Languages and  
190. Research Colloquia in Asian Languages and  

Seminar, three hours. Limited to 20 students. Design  
Seminar, three hours. Limited to 20 students. Design  

191A. Variable Topics Research Seminars: Life Writ  
191A. Variable Topics Research Seminars: Life Writ  

Seminar, three hours. Research seminar on selected topics.  
Seminar, three hours. Research seminar on selected topics.  

191B. Variable Topics Research Seminars: Buddhist Studies. (4) Seminar, three hours. Limited to juniors/ seniors. Research seminar on selected topics in Buddhist studies. Reading, discussion, and development of culminating project. May be repeated for credit. Letter grading.

191H. Honors Research Seminars: Asian Languages and Cultures. (4) Seminar, three hours. Limited to departmental and College honors students. Introduction to research methods and critical approaches to study of Asia in preparation for writing of senior honors thesis. May be repeated for credit. Letter grading.

193. Speaker Series Seminars: Asian Languages and Cultures. (2) Seminar, two hours. Limited to undergraduates. Introduction to latest scholarship in field of Asian studies. Attendance at selected scholarly presentations required, as well as with sessions with guest lecturers and discussions of published works of speakers. May be repeated for credit. P/NP grading.

195. Community Internships in Asian Languages and Cultures. (4) Tutorial, one hour; fieldwork, eight hours. Limited to juniors/seniors. Internship in supervised setting in community cultural or organizational setting. Students meet on regular basis with instructor and provide periodic journal reports of their experience. Final paper that combines academic research and knowledge gained from community experience required. Individual contract with supervising faculty member required. P/NP or letter grading.

198A-198B, 198C. Honors Research in Asian Languages and Cultures. (4-4-4) Tutorial, three hours. Limited to junior/senior departmental majors. May be repeated for credit. Individual contract required. 198A. Preparation: one undergraduate departmental seminar in development of honors thesis under direct supervision of faculty member. Letter grading. 198B. Enforced requisite: course 198A. Continuation of work initiated in course 198A, with emphasis on development of thesis that is relevant progress to supervising faculty member. In Progress grading (credit to be given only on completion of course 198C). 198C. Enforced requisite: course 198B. Completion of research developed in courses 198A, 198B. Presentation of honors project to supervising faculty member. Letter grading.

199. Directed Research in Asian Languages and Cultures. (2 to 8) Tutorial, to be arranged. Recommended preparatory advanced research knowledge in one Asian language. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit as instructor. Individual contract required. Letter grading.

200. Research Methods in East Asian Linguistics. (4) Seminar, three hours. Research methodologies for East Asian languages, with emphasis on compiling bibliographic data and using professional resources for research. Examination of texts analyzing language examples, theoretical implications of linguistic data, and applications of functional linguistics in order to explain language phenomena. S/U or letter grading.

201. Proseminar: Introduction to Buddhist Studies. (4) Seminar, three hours. Designed for graduate students in Buddhist studies. Introduction to history of field, bibliography, relations with other disciplines, and current issues and research trends. S/U or letter grading.

202. Proseminar: Functional Approaches to Japanese/Korean Linguistics. (4) Seminar, four hours. Preparation: three years of Japanese or Korean, one year of East Asian language, and knowledge of one Asian language. Limited to juniors/seniors. Enforced requisite: course 200 or 201. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit with consent of instructors. S/U or letter grading.

203. Variable Topics in East Asian Linguistics. (4) Seminar, three hours. Advanced course that explores topics in East Asian linguistics. Critical reading of current research on Asian languages and in-depth analysis of linguistic data. Topics include linguistic structure, communicative function, pragmatics, language, society, and culture, and language change. May be repeated for credit. S/U or letter grading.

204A-204B. Issues and Practices in Teaching Asian Languages. (4-4) Lecture, three hours. Course 204A is enforced requisite for 204B. Critical discussion of major pedagogical issues in teaching Asian languages (chiefly Chinese, Japanese, Korean) as second languages, with focus on second language acquisition theories and best practices as related to Asian language teaching. In Progress (204A) and S/U or letter (204B) grading.

205. Variable Topics in East Asian Culture and History. (2) Seminar, three hours. Selected topics in East Asian culture and history, with focus on China, Japan, and Korea. May be repeated for credit with change. S/U or letter grading.

206A. MA Practicum: Issues in Teaching Asian Languages and Cultures: Classroom Practice. (4) Seminar, two hours; teaching practice, two hours. Training and supervised Asian language practicum in form of in-person, online, and/or peer-based instructional activities for MA students under training to become language instructors at K-12 or postsecondary level. Activities generally involve instruction, tutorial, assessment, material development, and other professional practices, with goal for students to gain actual experience as language teacher. Discussion includes varied aspects of language teaching as profession. S/U or letter grading.

206B. MA Practicum: Instructional Apprenticeship in Teaching Asian Languages. (4) Seminar, three hours; teaching practice, two hours. Training and supervised Asian language practicum in form of in-person, online, and/or peer-based instructional activities for MA students under training to become language instructors at K-12 or postsecondary level. Activities generally involve lesson design, delivering instructions and tutorials, preparing and performing role-play activities, and professional practices, with goal for students to gain actual experience as language teacher. Discussion includes varied aspects of language teaching as profession. S/U or letter grading.

206C. MA Practicum: Best Practices in Teaching Asian Languages. (4) Seminar, three hours; teaching practice, two hours. Training and supervised Asian language practicum in form of in-person, online, and/or peer-based instructional activities for MA students under training to become language instructors at K-12 or postsecondary level. Activities generally involve lesson design, delivering instructions and tutorials, preparing and performing role-play activities, and professional practices, with goal for students to gain actual experience as language teacher. Discussion includes varied aspects of language teaching as profession. S/U or letter grading.

210. Proseminar: Cultural and Comparative Studies. (4) Seminar, three hours. Enforced requisite: course 200 or letter 201. Introduction to theoretical topics relevant to comparative study of East Asian cultures in modern period. Readings include Western theoretical works on comparative and theoretical approaches to East Asian topics. S/U or letter grading.


216. Seminar: History and Asia. (4) Seminar, three hours. Designed for graduate students. Readings and discussion of major historiographical trends, with focus on how they have been applied to Asia. Topics include Marxist histories, Annales school and cultural history, microhistories, gender, space, historical memory, postcolonial histories, subaltern, and modernity. S/U or letter grading.

220A-220B. Seminars: Topics in Cultural Studies. (4-4) Seminar, three hours. Complements course 210. Further investigation of methodology and materials of cultural studies in connection with specific topics selected by instructors. May be repeated for credit. In Progress (220A) and letter (220B) grading.

222A-222B. Corpus Linguistics. (4-4) Seminar, three hours. Construction and exploitation of computerized language corpora for studying issues in areas such as cultural historical change and variation, language learning, and teaching. Discussion of special issues in working with East Asian language corpora. In Progress (222A) and S/U or letter (222B) grading.

23224. Teaching and Learning of Heritage Languages. (4) Same as Near Eastern Languages CM214 and Slavic CM214.) Lecture, three hours. Construction of issues relevant to heritage language learners (HL) and to heritage language (HL) instruc-
230A-230B. Seminars: Theoretical Topics in East Asian Languages and Literatures. Three hours. Preparation: reading knowledge of at least one East Asian language. Concerns of literary theory that are brought to bear by reading of literature from or about East Asia. Readings from both Western and Eastern theorists; issues of translation, comparison, and categorization. In Progress (230A) and letter (230B) grading.

240A-240B. Seminars: Topics in East Asian Literary History. (4–4) Seminar, three hours. Preparation: reading knowledge of at least five years of one East Asian language. Critical issues common to literary historiography in East Asia, including periodization, canon, ideology, interaction between high and low culture, written and oral literature, etc. In Progress (240A) and letter (240B) grading.


245A-245B. Seminars: Position of Modernity in East Asian Literatures. (4–4) Seminar, three hours. Preparation: at least five years of one East Asian language. Designed for graduate students. Course 245A concerned with conceptual architecture and archaeology of modernity, with readings largely from European sources. In-class debate probes relevance of these readings for work as Asianists. Focus on Asian writings in course 245B. In Progress (245A) and letter (245B) grading.

255. Topics in Southeast Asian Literature and/or Cinema. (4) Seminar, three hours. Knowledge of one Southeast Asian language recommended but not required. Theoretical concerns raised by works from Southeast Asia, consideration of Southeast Asian diasporas. Critical and historical examination of literary and/or film representations connected to practices of empire, nation, diaspora, and globalization. May be repeated for credit. S/U or letter grading.


265A-265B. Seminars: Selected Topics in Buddhist Studies. Three hours. Preparation: command of one or more languages. May be repeated for credit. In Progress (265A) and letter (265B) grading.

270. Approaches to Study of Religion. (4) Seminar, three hours. Investigation of many ways in which religion appears. May be studied, including anthropological, sociological, historical, and political approaches and others. Readings of primary and secondary sources of modern scholarship. Concurrently scheduled with course C170. Letter grading.

281A-281B. Field Methods for Study of East Asian Oral Traditions. (4–4) Seminar, three hours. Description and evaluation of modern approaches to collecting and documenting oral tradition as text, performance, and sociocultural event, providing hands-on experience in fieldwork and archiving methods. Consideration of approaches ranging from written transcription and textualization to audio and video presentations. In Progress (281A) and S/U or letter (281B) grading.

M292. Japan in Age of Empire. (4) Same as Anthropology M247P. Seminar, three hours. Designed for graduate students. Since late 19th century, Japan expanded its empire into East and Southeast Asia. Coverage of that period and array of anthropological sources. Consideration of Japan’s colonial policies and occupied areas in this hardly explored area of study of colonialism. S/U or letter grading.

293. Graduate Student Colloquium. (4) Research group meeting, three hours. Designed to provide graduate students with opportunities to present their research to other students and faculty members. S/U grading.

297. Life Writing in East Asia. (4) Seminar. Three hours. Readings of biography and autobiography as elements of East Asian cultural traditions, with focus rotating between China, Japan, and Korea. Readings in English and relevant East Asian languages. Letter grade.

299. Independent Study, (2 to 6) Tutorial, to be arranged. Designed for graduate students. Guided research and writing of research paper. May be repeated, but only 4 units may be applied toward MA degree. May not be applied toward PhD degree. S/U or letter grading.

301. Teaching East Asian Language as Foreign Language. (4) Lecture, four hours. S/U or letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Training apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

495. Teaching Asian Languages at College Level. (4) Seminar, three hours. Preparation: appointment as teaching assistant in East Asian languages and cultures or South and Southeast Asian languages and cultures. Study in team-teaching, teaching methodology, developing course materials, and testing. Participation in peer observations and workshops required. Students receive unit credit toward full-time equivalence but not toward any degree requirements. S/U grading.

496C. Computer Technologies for Teaching College-Level Chinese. (2) Lecture, two hours. Intended for current or potential teaching assistants in Chinese. Introduction to tools and technology designed to enrich classroom learning, help effectively manage student records, and expose students to current computer software and web resources. May be applied toward degree requirements. S/U grading.

496E. Computer Technologies for Teaching College-Level East Asian Languages. (2) Lecture, two hours. Intended for current or potential teaching assistants in East Asian languages. Introduction to tools and technology designed to enrich classroom learning, help effectively manage student records, and expose students to current computer software and web resources. May be applied toward degree requirements. S/U grading.

496J. Computer Technologies for Teaching College-Level Japanese. (2) Lecture, two hours. Intended for current or potential teaching assistants in Japanese. Introduction to tools and technology designed to enrich classroom learning, help effectively manage student records, and expose students to current computer software and web resources. May be applied toward degree requirements. S/U grading.

496K. Computer Technologies for Teaching College-Level Korean. (2) Lecture, two hours. Intended for current or potential teaching assistants in Korean. Introduction to tools and technology designed to enrich classroom learning, help effectively manage student records, and expose students to current computer software and web resources. May be applied toward degree requirements. S/U grading.

501. Cooperative Program. (2 to 8) Tutorial, to be arranged. Preparation: consent of UCLA graduate adviser and graduate dean, and host campus instructor, department chair, and graduate dean. Used to record enrollment of UCLA students in courses taken under cooperative arrangements with USC. S/U grading.


597. Preparation for MA Comprehensive Examination or PhD Qualifying Examinations. (4 to 8) Tutorial, to be arranged. S/U grading.

598. Research for and Preparation of MA Thesis. (4 to 8) Tutorial, to be arranged. Maximum of 8 units may be applied toward MA degree requirements. S/U grading.


1. Elementary Modern Chinese. (5) Lecture, three hours; discussion, two hours. Not open to students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Introduction to the fundamentals of Chinese, including pronunciation, grammar, and Chinese characters, with emphasis on all four basic language skills—speaking, listening, comprehension, reading, and writing. P/NP or letter grading.

1A. Elementary Modern Chinese for Advanced Beginners. (5) Lecture, three hours; discussion, two hours. Recommended preparation: ability to speak and understand Mandarin or other Chinese dialects at elementary levels. Not open to students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Designed for students who already have certain listening and speaking skills in Mandarin or other Chinese dialects at elementary levels. Training in all four basic language skills (speaking, listening, reading, and writing). P/NP or letter grading.

2. Elementary Modern Chinese. (5) Lecture, three hours; discussion, two hours. Enforced requisite: course 1 with grade of C or better or Chinese placement test. First-year Chinese. Not open to students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Continuation of course 1. P/NP or letter grading.

2A. Elementary Modern Chinese for Advanced Beginners. (5) Lecture, three hours; discussion, two hours. Enforced requisite: course 2 with grade of C or better, or Chinese placement test. First-year Chinese. Not open to students who have learned, from whatever source, Chinese to qualify for more advanced courses. Continuation of course 2A. P/NP or letter grading.

3. Elementary Modern Chinese. (5) Lecture, three hours; discussion, two hours. Enforced requisite: course 2 with grade of C or better or Chinese placement test. First-year Chinese. Not open to students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Continuation of course 3A. P/NP or letter grading.

3A. Elementary Modern Chinese for Advanced Beginners. (5) Lecture, three hours; discussion, two hours. Enforced requisite: course 3A with grade of C or better or Chinese placement test. First-year Chinese. Not open to students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Continuation of course 3A. P/NP or letter grading.

3R. Accelerated Modern Chinese for Advanced Beginners. (5) Lecture, three hours; discussion, one hour. Requisite: course 3 or 8 with grade of C or better or Chinese placement test. Second-year Chinese. Not open to students who have
learned, from whatever source, enough Chinese to qualify for more advanced courses. Designed to strengthen communicative skills of listening, speaking, reading, and writing, knowledge of idiomatic expressions, and both traditional and simplified characters. P/NP or letter grading.

4A. Intermediate Modern Chinese for Advanced Students. (5) Lecture, three hours; discussion, one hour. Requisite: course 3A with grade of C or better or Chinese placement test. Second-year Chinese. Not open to students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Placement to intermediate-level Chinese. Second-year Chinese. Not open to students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Intensive course equivalent to courses 4, 5, and 6. Designed to strengthen communicative skills of listening, speaking, reading, and writing. Grammar reviews, knowledge of idiomatic expressions, and both traditional and simplified characters. Completion of course 10 is equivalent to completion of course 6. Offered in summer only. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current and historical interest by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

50. Chinese Civilization. (5) Tutorial, three hours; discussion, one hour. Enforced requisite: English Composition 3 or 3H or English as a Second Language not required. Introduction to pre-20th-century Chinese literary traditions, including selections from poetry, prose, fiction, and drama. P/NP or letter grading.

70W. Classics of Chinese Literature. (5) Lecture, three hours; discussion, two hours. Enforced requisite: English Composition 3 or 3H as a Second Language 36. Not open for credit to students with credit for course 70. Prior knowledge of Chinese culture, language and law, language and thought patterns, language and gender, language and visual media, language and law and language arts, and language and globalization. P/NP or letter grading.

10. Intermediate Modern Chinese: Intensive. (15) Lecture, 10 hours; discussion, 10 hours. Recom- mended preparation: course 3, 3A, or 8, or Chinese placement test. Second-year Chinese. Not open to students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Intensive course equivalent to courses 4, 5, and 6. Designed to strengthen communicative skills of listening, speaking, reading, and writing. Grammar reviews, knowledge of idiomatic expressions, and both traditional and simplified characters. Completion of course 10 is equivalent to completion of course 6. Offered in summer only. P/NP or letter grading.

1. Introduction to Chinese Religions. (5) Lecture, three hours; discussion, one hour. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Not open for credit to students with credit for course 10. Prior knowledge of Chinese culture, language and law, language arts, and cultural background. Readings, compositions, in- cluding selections from poetry, prose, fiction, and drama. Satisfies Writing II requirement. Letter grading.

20. Chinese Cinema: Pictures, Prisms, Products, Projections. (5) Lecture, two hours; discussion, one hour; film viewing, three hours. Knowledge of Chinese not required. Introduction to history and major themes of Chinese cinema. Representative films studied in contexts of culture, society, politics, and economics, with reflections on changing meanings of both Chi- nese and cinema. May not be repeated for credit. P/NP or letter grading.

89. Honors Seminars. (1) Seminar, Three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible stu- dents. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. De- signed as adjunct to lower-division lecture course. In- dividual study with lecture course instructor to explore topics in greater depth through supplemental read- ings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract re- quired. Honors content noted on transcript. Letter grading.

97. Variable Topics in Chinese Culture. (4) Lecture, three hours; knowledge of Chinese culture, language and law, language and thought patterns, language and gender, language and visual media, language and law and language arts, and language and globalization. P/NP or letter grading.

5W0. Chinese Civilization. (5) Lecture, three hours; discussion, one hour. Enforced requisite: English Composition 3 or 3H as a Second Lan- guage 36. Not open for credit to students with credit for course 50. Knowledge of Chinese not required. Introduction to most important aspects of Chi- nese culture. Topics include early Chinese civilization, historical development of Chinese society, issues of ethnic, Chinese language and philosophy, and early scientific and technological innovation. P/NP or letter grading.

Upper-Division Courses

100A-100B-100C. Advanced Modern Chinese. (4–4–4) Lecture, three hours; discussion, one hour. En- forced requisite: course 6 or 10 with grade of C or better or Chinese placement test. Course 100A with grade of C or better or Chinese placement test is en- forced requisite to 100B; course 100B with grade of C or better or Chinese placement test is enforced requi- site to 100C. Third-year Chinese. Not open to stu- dents who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Materials selected from contemporary Chinese publications, with emphasis on social sciences. Three hours per week. Entry-level requirement for lower-division students under graduate of University. Students must be in good academic standing and en- rolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

100E-100F-100G. Advanced Modern Chinese for Heritage Speakers. (4–4–4) Lecture, three hours; dis- cussion, two hours. Enforced requisite: course 6A with grade of C or better or Chinese placement test. Course 100E with grade of C or better or Chinese placement test is enforced requisite to 100F; course 100F with grade of C or better or Chinese placement test is enforced requisite to 100G. Third-year Chinese for heritage speakers. Not open to students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Materials selected from contemporary Chinese publications, with em- phasis on social sciences. Texts analyzed for their lin-
Lecture, 10 hours; discussion, 10 hours. Enforced requisite: linguistic features and social and cultural background. For courses 101A, 101B: lecture, equivalent to courses 100A, 100B, and 100C. Mandatory: course 6 or 10 with grade of C or better or Chinese placement test. Each course may be taken independently for credit. Letter grading.

101A-101B-101C. Advanced Readings in Modern Chinese. (6) Lecture, two hours; discussion, two hours; for course 101C: lecture, three hours; discussion, one hour. Requisite: courses 101A, 101B; course 100C or 100F or 100I or Chinese placement test; for course 101C: 101B or Chinese placement test. Not open to students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Advanced readings and assignments. Intended for those planning to do advanced coursework or research on China. Topics from magazines, journals, and books related to humanities and social sciences. Each course may be taken independently for credit. Letter grading.

102A. Advanced Chinese for International Business. (4) Lecture, three hours; discussion, one hour. Requisite: course 6 or 10 with grade C or better or Chinese placement test. Not open to native speakers. Designed to improve student language skills in service of business practice and ground language learning in authentic social cultural settings. Focus on oral and written business communication, cross-cultural communication, social etiquette in business conduct, Chinese economic and business climate, language of business transactions, resources and environment, and business case studies. Letter grading.

102B. Advanced Chinese for International Business. (4) Lecture, three hours; discussion, one hour. Requisite: course 6 or 10 with grade C or better or Chinese placement test. Not open to native speakers. Doing business with China and understanding Chinese economy and business conducts require advanced level of Chinese language proficiency and deep understanding of social and cultural practices. Advanced coursework or research on China. Topics from magazines, journals, and books related to humanities and social sciences. Each course may be taken independently for credit. Letter grading.

110A-110B-110C. Introduction to Classical Chinese. (4-4-4) Lecture, three hours; discussion, one hour. Enforced requisite: course 3 or Chinese placement test. Course 110A is enforced requisite to 110B, which is enforced requisite to 110C. Grammar and readings in selected premodern texts. P/NP or letter grading.

1120. Introduction to Chinese Linguistics. (4) Lecture, three hours; discussion, one hour. Recommended preparation: one to two years of college-level Chinese. Introduction to sound system, writing system and its reform, regional differences, major structural features, language in society and in cultural practices. Concurrently scheduled with course 2240. Letter grading.

124. Taiwanese Language and Culture. (4) Lecture, two hours; discussion, one hour. Enforced requisite: course 3 or Chinese placement test. Taiyú or Taiwánese (also known as Minnan, Hokkien, or Hokkien, depending on context or region), is language that most Taiwanese people use in daily lives, including everyday interaction and communication, entertainment, social and cultural events, etc. Examination of various manifestations of Taiyú in different forms of cultural production, including cinema, television series, pop music, animation, Gezai opera, glove puppetry, and other media. Discussion also of how these media have represented Taiwan’s society and shaped its cultural landscape. P/NP or letter grading.

125. Taiwanese Language and Expressive Cultures. (4) Lecture, two hours; discussion, one hour. Enforced requisite: course 3 or Chinese placement test. Taiyú, or Taiwanese (also known as Minnan, Hokkio, or Hokkien, depending on context or region), is language that most Taiwanese people use in daily lives, including everyday interaction and communication, entertainment, social and cultural events, etc. Expressive culture is one way by which group of people express their ideas, emotions, values, ideologies, and belief systems through aesthetic performances and their performances germane to everyday life. Examination of expressive cultures through Taiyú language is important way to understand multi-faceted society of Taiwan as well as Taiwan’s cultural production. Examination of various manifestations of Taiyú in different forms of cultural production including pop music; traditional and modern theatre including Gezai opera, glove puppetry, and other media; and documentary; and other media. Discussion also of how these media have represented Taiwan’s society and shaped its cultural landscape. P/NP or letter grading.

139. Gardens in China. (4) Lecture, three hours; discussion, one hour. Enforced requisite: course 100C or Chinese placement test. Reading and discussion of works by native writers and by foreign visitors through centuries. Concurrently scheduled with course 2328. Letter grading.

140A-140D. Readings in Classical Chinese Literature. (4 each) Lecture, three hours; discussion, one hour. Enforced requisite: course 110C. Advanced classical Chinese. Readings and discussion of works of premodern Chinese literature. Each course may be taken independently for credit. Letter grading. 140A. Poetry; 140B. Prose; 140C. Fiction; 140D. Philosophical Texts.

142. Gardens in China. (4) Lecture, three hours; discussion, one hour. Preparation: bridging competency in Chinese and English. Workshop on Chinese-English literary translation, designed to hone and improve translation skills. Focus on close readings and analysis of original texts against published English translations and actual translation work. May include interpretation segment, designed to improve interpretation skills. Concurrently scheduled with course 2450. Letter grading.

150A. Lyric Traditions. (4) Lecture, three hours; discussion, one hour. Knowledge of Chinese not required. Readings in English translation of poetic and critical writings of traditional China, with emphasis on development of subjectivity and modes of address. Concurrently scheduled with course 250A. P/NP or letter grading.

155. Chinese Immigrant Literature and Film. (4) (Same as Asian American Studies M150B and Comparative Literature M171.) Lecture, three hours; discussion, one hour. Knowledge of Chinese not required. Introduction to early Chinese immigrant experience through reading literature and watching films. Theories of diaspora, gender, and race to inform thinking and discussion of relevant issues. P/NP or letter grading.

154. Introduction to Chinese Cinema. (4) Lecture, two hours; discussion, one hour; film viewing, three hours. Knowledge of Chinese not required. History of Chinese-language cinemas, with emphasis on mainland China. Examination of film style and aesthetics, as well as economic, social, and political history. May be repeated for credit with topic change. P/NP or letter grading.

156. Variable Topics in Culture and Society in Taiwan. (4) Lecture, three hours; discussion, one hour. Designed for seniors with knowledge of Chinese required. Examination of relationship between culture, art, literature, film and society in Taiwan. Reading, audio and visual material, discussion, and development of culminating project. May be repeated for credit with topic change. Concurrently scheduled with course C257. Letter grading.

157. Contemporary Chinese Popular Culture. (4) Lecture, three hours; discussion, one hour. Examination of various aspects of modern and contemporary popular culture in China, Taiwan, and Hong Kong from cultural studies perspective. Genres and media include literature, print culture, cinema, martial arts film and fiction, television, radio, music, visual arts, fashion, advertising, and cyberculture. P/NP or letter grading.

159. Variable Topics in Culture and Society in China. (4) Lecture, three hours; discussion, one hour. Knowledge of Chinese required. Examination of relationship between culture, art, literature, history, film and society in China. Reading, audio and visual material, discussion, and development of culminating project. May be repeated for credit with topic change. P/NP or letter grading.


184. Crime, Law, and Punishment in Traditional China. (4) Lecture, three hours; discussion, one hour. Prevalent crime and administering justice important parts of any society, but these are not straightforward for simple processes. What is crime? Are there crimes so terrible that they merit special kinds of punishment? How is punishment decided and by whom? What happens if justice is not carried out? Considerations of these questions in premodern China from multiple perspectives: legal codes and casebooks, literary re-imaginations of trials, depictions of postmortem punishment, and tales of supernatural retribution. Discussion of how legal and penal systems of China have been represented in West. Letter grading.

185. Food and Love in Chinese Culture. (4) Lecture, three hours; discussion, one hour. Representative works from 1900 to present in Chinese not required. Based on studies of cultural, historical, anthropological, and archaeological materials, introduction to how Chinese have been engaging themselves in fields of food eating and love making. Letter grading.

186. Archaeology in China. (4) Lecture, three hours; discussion, one hour. Knowledge of Chinese not required. Early Chinese study of their own past, types of archaeology, excavation techniques, and surveys of major excavations of sites of all periods. Letter grading.

187. Chinese Etymology and Calligraphy. (4) Lecture, three hours; discussion, one hour. Recommended prerequisite: course 3. Coverage of (1) development of Chinese writing system from pottery inscriptions 6,000 years ago to modern simplified forms and studies of six scripts principles that were used to form Chinese characters, and (2) calligraphic art and its appreciation, with focus on ways of recognizing and interpreting cursive style, common for handwriting. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contract. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental reading, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.


197. Individual Studies in Chinese. (4) Tutorial, to be arranged. Limited to juniors/senior and graduate students who desire more advanced or specialized instruction in Chinese. Individual intensive study, with scheduled meetings to be arranged between faculty advisor and student. Advanced research and collection of evidence of mastery of subject matter required. May be repeated for credit. Individual contract required; see undergraduate advisor. P/NP or letter grading.

Graduate Courses

200A. Research Methods in Chinese. (4) Seminar, three hours. Required. Concepts and methods of research and discussion designed to develop basic skills in using traditional Chinese research materials. Topics include classical dictionaries; sinological indices; bibliograph-
ical, biographical, and geographical sources; encyclopedias; anthologies; rare editions; illustrated matter.

208B. Proseminar: Premodern Chinese Literature. (4–4) Seminar. Three hours. Introduction to major bibilographical and methodological resources in field of premodern Chinese literature, with focus on research tools in field and on scholarship in English on major literary genres, periods, and authors. Letter grading.


211A-211B. Seminars: Classical Chinese Poetry. (4–4) Seminar, three hours. Reading knowledge of classical Chinese. Close reading of chapters from Han dynasty collection of writings on forms of music, social interaction, education, marriage, and mourning in Zhou royal court, with discussion of topics in recent cultural semiotics and anthropology. In Progress (211A) and letter (211B) grading.

212. Topics in Chinese Poetry. (4) Readings/discussion, three hours. Selected readings from classical poetic tradition, with focus on individual poets, themes, or other critical issues. May be repeated for credit with consent of instructor. Letter grading.

213A-213B. Chinese-Language Cinemas. (4–4) Seminar, three hours; film-viewing laboratory, two hours. Focus on Chinese- and Sinophone-language films and cinema. Examination of theory and methodology, historiography, industry and institutions, style and aesthetics, major genres and artists, other media, and other critical and cultural contexts. May be repeated for credit with consent of instructor. In Progress (213A) and letter (213B) grading.

220A-220B. Theoretical Approaches to Chinese and Sinophone Cultures. (4–4) Seminar, three hours. Discussion of theoretical approaches to Chinese and Sinophone cultures. May be repeated for credit with consent of instructor. In Progress (220A) and letter (220B) grading.

224A-224B. Seminars: Selected Topics in Chinese Linguistics. (4–4) Seminar, three hours. Critical reading and discussion of selected topics in Chinese functional linguistics and grammar, corpus linguistics, sociolinguistics, language change. May be repeated for credit with consent of instructor. In Progress (224A) and letter (224B) grading.


230A-230B. Seminars: Selected Topics in Modern Chinese Literature. (4–4) Seminar, three hours. Selected readings in 20th-century Chinese literature, emphasizing critical and textual issues and methods. May be repeated for credit. In Progress (230A) and letter (230B) grading.

237. How to Read Chinese Poetry. (4) Lecture, two and one-half hours; discussion, one hour. Preparation: one year of literary Chinese. From earliest vestiges of Chinese poetry more than two thousand years ago, to doors of contemporary Chinese homes, and to San Francisco’s Angel Island in late 19th century; few students of Chinese literature can go far without suddenly encountering pervasive presence of Chinese poetry (shi). Examination of why poetry, role of poetry plays in Chinese culture, and how to read it. Basic beginning level, learning how to read Chinese classical poetry. Study is topical and cumulative, designed to have effect of building blocks and progressive overlays. Introduction to language, forms, and history of shi poetry as part of poetic unity of Chinese lyric poetry, individual words and their selection; formal elements and rhetorical features; modes of perception and how it governs lyric description, narration, and argument. Consideration of presuppositions of what poetry is and how it is to be read. Concurrently scheduled with course C137. S/U or letter grading.

238. Travel Writing in Premodern China. (4) Lecture, three hours; discussion, one hour. Recommended preparation: course 101B or Chinese placement test. Intended to improve reading and writing skills in specific academic and professional subject areas for students who have studied general Chinese at advanced level, with coverage in Chinese humanities and social sciences, science and technology, medicine, and applied linguistics. Concurrently scheduled with courses C107A–C107B. S/U or letter grading.

239. Issues in Chinese Literature. (4) Seminar, three hours. Exploration of selected topics and issues in Sinophone literature, literature written in Sinitic languages by ethnic minority writers in China, and literature written by those living outside China across world, especially in Malaysia, Taiwan, Singapore, and the U.S. S/U or letter grading.


241A-241B. Heaven, Earth, and Monarchy in Ancient China. (4–4) Seminar, three hours. Preparation: working knowledge of classical Chinese. Close reading of chapters from Han dynasty collection of writings on forms of music, social interaction, education, marriage, and mourning in Zhou royal court, with discussion of topics in recent cultural semiotics and anthropology. In Progress (241A) and letter (241B) grading.

242A-242B. Chinese Classics and Exegetical Traditions. (4–4) Seminar, three hours. Recommended preparation: command of literary Chinese. Reading and discussions of selections from one traditional Chinese classic (Confucian Five Classics, others), with introduction to exegetical history, secondary scholarship, and research methodology. Topics vary from year to year. May be repeated for credit. In Progress (242A) and letter (242B) grading.


244. Translation Workshop: Modern Chinese Texts. (4) Lecture, three hours; discussion, one hour. Preparation: bilingual competency in Chinese and English. Workshop on Chinese-English literary translation, designed to hone and improve translation skills. Focus on close readings and analysis of original texts against published English translations and actual translation work. May include interpretation segment, designed to improve interpretation skills. Concurrently scheduled with course C144. S/U or letter grading.

245A-245B. Seminars: Traditional Chinese Narratives and Drama. (4–4) Seminar, three hours. Preparation: reading knowledge of colloquial and literary Chinese. Narrative topics between traditional narrative and drama, with emphasis on generic, hermeneutical, and historical approaches. Topics in narrative selected from genres from Chou through Ch’ing periods. Topics drawn from ta-cha’ and ch’-uan-ch’i. May be repeated for credit with consent of instructor. In Progress (245A) and letter (245B) grading.

250A. Lyrical Traditions. (4) Lecture, three hours; discussion, one hour. Preparation: courses C141-142. Study of poetic and critical writings of traditional China, with emphasis on development of subjectivity and mode of address. Concurrently scheduled with course C150A. Graduate students required to read primary materials in original Chinese. S/U or letter grading.

250B. Chinese Literature in Translation: Traditional Narrative and Fiction. (4) Lecture, three hours; discussion, one hour. Preparation: Knowledge of Chinese not required. Examination of major and vast development of Chinese narrative traditions from Tang to mid-Qing periods (7th–18th centuries). Readings from biographical writings, fiction, drama, legal cases, etc., with presentation and comparison of different narrative forms and their cultural assumptions and intersections. Exploration of important issues in context of imperial China, including order and chaos, self and other, desire and transgression, power and resistance, violence and justice. May be taken independently for credit. Concurrently scheduled with course C150B. Letter grading.

256A-256B. Chinese Literary Criticism. (4–4) Seminar, three hours. Issues in production and interpretation of literary works, as formulated by Chinese critics from classical age onward. Letter grading.

257. Variable Topics in Culture and Society in Taiwan. (4) Lecture, three hours; discussion, one hour. Preparation: courses C137-138. Designed for graduate students. Knowledge of Chinese not required. Examination of relationship between culture (art, literature, film) and society in Taiwan. Reading, audio and visual material, discussion, and development of culminating project. May be repeated for credit with topic change. Concurrently scheduled with course C156. Letter grading.

260. Chinese Buddhism. (4) Lecture, three hours; discussion, one hour. Preparation: consent of instructor. May be repeated for credit. Introduction and development of Buddhism in China, interaction between Buddhism and Chinese culture from early Buddhism to 100 BCE, with topics on invention of Confucian tradition (including Five Classics) and on defenses of that tradition against challenges from Mohists, Taoists, and other groups of thinkers. Concurrently scheduled with course CM160. Letter grading.

265A-265B. Seminars: Chinese Buddhist Texts. (4–4) Seminar, three hours. May be repeated for credit with consent of instructor. In Progress (265A) and letter (265B) grading.

275. Introduction to Chinese Thought. (4) Lecture, three hours; discussion, one hour. Preparation: Consent of instructor. May be repeated for credit. Introduction to Chinese thought as represented in texts of Zhou through early Han periods (c. 1000 BCE to 100 BCE), with topics on invention of Confucian tradition (including Five Classics) and on defenses of that tradition against challenges from Mohists, Taoists, and other groups of thinkers. Concurrently scheduled with course CM175. Letter grading.

275A-275B. Seminars: Readings in Chinese Religions. (4–4) Seminar, three hours. Preparation: reading knowledge of classical Chinese. Selected readings from religious traditions of China, with introduction to different religious traditions, secondary scholarship, and research methodology. Topics rotate among chronological periods and major religious traditions. May be repeated for credit with consent of instructor. In Progress (275A) and letter (275B) grading.

290A-290B. Seminars: Selected Topics in Chinese Archaeology. (4–4) Seminar, three hours. Required: course 186. Discussion and research on major problems about Chinese archaeology and different inter-
pretations to most important archaeological finds, with emphasis on studies of Xian and Shang cultures and Xian and Shang dynasties. May be repeated for credit. In Progress (295A) and letter grading.

291. Archaeological Process in China. (4) Seminar, three hours. Introduction to major bibliographical and methodological resources in field of Chinese archaeology to provide deeper understanding of formulation of conceptual categories archaeologists of early China used to make sense of past through interpretation of material culture. S/U or letter grading.

295A-295B. Seminars: Selected Topics in Chinese Cultural History. (4–4) Seminar, three hours. Discussion and research on major problems related to Chinese culture, such as beginnings of Chinese civilization and Chinese dynastic history. Other topics include cultural developments of ancient and medieval China. May be repeated for credit. In Progress (295A) and letter (295B) grading.

297A. Seminar: Research Topics in Premodern China. (4) Seminar, three hours. Selected topics in pre-modern Chinese literature, history, or religion, with emphasis on textual readings and independent research. S/U or letter grading.

297B. Seminar: Research Topics in Modern Chinese and Sinophone Culture. (4) Seminar, three hours. Selected topics in modern Chinese and Sinophone culture, with major emphasis on independent research. S/U or letter grading.

Filipino

Lower-Division Courses

1. Introductory Filipino. (5) Lecture, two hours; discussion, three hours. Coverage of basic Filipino/Tagalog grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

2. Introductory Filipino. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 1 with grade of C or better. Coverage of basic Filipino/Tagalog grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

3. Introductory Filipino. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 2 with grade of C or better. Coverage of basic Filipino/Tagalog grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

4. Intermediate Filipino. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 3 with grade of C or better. Reinforcement of basic Filipino/Tagalog grammar and coverage of more advanced topics. Broadening of skills in conversation and composition; reading of selected texts. P/NP or letter grading.

5. Intermediate Filipino. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 4 with grade of C or better. Reinforcement of basic Filipino/Tagalog grammar and coverage of more advanced topics. Broadening of skills in conversation and composition; reading of selected texts. P/NP or letter grading.

6. Intermediate Filipino. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 5 with grade of C or better. Reinforcement of basic Filipino/Tagalog grammar and coverage of more advanced topics. Broadening of skills in conversation and composition; reading of selected texts. P/NP or letter grading.

7. Elementary Filipino: Intensive. (15) Lecture, 10 hours; discussion, 10 hours. Intensive course equivalent to courses 1, 2, and 3. Coverage of basic Filipino/Tagalog grammar, with equal emphasis on reading, writing, conversation, and comprehension. Offered in summer only. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to graduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

Hindi-Urdu

Lower-Division Courses

1. Introductory Hindi-Urdu. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 1 with grade of C or better. Coverage of basic Hindi grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

2. Introductory Hindi-Urdu. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 2 with grade of C or better. Coverage of basic Hindi grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

3. Intermediate Hindi-Urdu. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 3 with grade of C or better. Coverage of intermediate Hindi-Urdu grammar and vocabulary, with emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

3R. Elementary Hindi-Urdu Reading and Writing. (5) Lecture, five hours. Recommended preparation: speaking and listening skills in Hindi-Urdu. Training in reading and writing skills at elementary level, equivalent to completion of one year of Hindi-Urdu. P/NP or letter grading.

4. Intermediate Hindi-Urdu. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 4 with grade of C or better. Coverage of advanced Hindi-Urdu grammar and vocabulary, with emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

4R. Elementary Hindi-Urdu Reading and Writing. (5) Lecture, five hours. Recommended preparation: speaking and listening skills in Hindi-Urdu. Training in reading and writing skills at intermediate level, equivalent to completion of one year of Hindi-Urdu. P/NP or letter grading.

5. Intermediate Hindi-Urdu. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 5 with grade of C or better. Coverage of advanced Hindi-Urdu grammar and vocabulary, with emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

5R. Intermediate Hindi-Urdu Reading and Writing. (5) Lecture, five hours. Recommended preparation: speaking and listening skills in Hindi-Urdu. Training in reading and writing skills at intermediate level, equivalent to completion of one year of Hindi-Urdu. P/NP or letter grading.

15. Topics in Filipino Cinema and Literature. (4) Lecture, three hours; discussion, one hour. Knowledge of Filipino not required. Critical analysis of language and culture, history, and sociopolitical issues as reflected in Filipino films and/or literature. May be repeated once for credit. P/NP or letter grading.

170. People, Society, and Culture of Philippines. (4) Lecture, two hours; discussion, one hour. In-depth examination of Philippines, focusing on history and colonial formation under both Spain and U.S. to struggle for independence, Martial Law period, profound socio-economic issues of post-Marcos republic, including extreme poverty and global economic phenomenon of overseas Filipino workers in 21st century. Readings and selected films/videos contextualize specific topics under discussion. General orientation to political history and social conditions of Philippines. Study of various social categories of Filipinos in present day, and means of engaging with essential societal issues. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to graduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.
Upper-Division Courses

100A-100B-100C. Intermediate Hindi-Urdu. (4–4–4) Lecture, two hours; discussion, three hours. Enforced requisite: course 3 with grade of C or better. Course 100A with grade of C or better is requisite to 100B; course 100B with grade of C or better is requisite to 100C. Reinforcement of basic Hindi grammar and coverage of more advanced topics. Broadening of skills in conversation and composition, reading of selected texts. P/NP or letter grading.

109. Advanced Tutorial Instruction in Hindi-Urdu. (2) Tutorial, two hours. Requisite: course 6 or Hindi-Urdu placement test. Tutorial and guided independent study to help students develop advanced to superior proficiency in oral and written Hindi-Urdu. May be repeated for credit. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

100A-100B-100C. Advanced Indonesian. (4–4–4) Lecture, three hours; discussion, one hour. Required: course 3 with grade of C or better is requisite to 100B; course 100B with grade of C or better is requisite to 100C. Preparation for more advanced study of specialized academic subjects, including but not limited to social sciences and humanities. Students read authentic materials in Indonesian concerning various issues. P/NP or letter grading.

109. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189. Honors Contracts. (1) Tutorial, two hours. Requisite: course 6 or Indonesian placement test. Tutorial and guided independent study to help students develop advanced to superior proficiency in oral and written Indonesian. May be repeated for credit. P/NP or letter grading.

Upper-Division Courses

100A-100B-100C. Advanced Indonesian. (4–4–4) Lecture, three hours; discussion, one hour. Required: course 3 with grade of C or better is requisite to 100B; course 100B with grade of C or better is requisite to 100C. Preparation for more advanced study of specialized academic subjects, including but not limited to social sciences and humanities. Students read authentic materials in Indonesian concerning various issues. P/NP or letter grading.

109. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189. Honors Contracts. (1) Tutorial, two hours. Requisite: course 6 or Indonesian placement test. Tutorial and guided independent study to help students develop advanced to superior proficiency in oral and written Indonesian. May be repeated for credit. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

10. Intermediate Modern Japanese. (15) Lecture, three hours; discussion, two hours. Enforced requisite: course 3 with grade of C or better. Not open to students who have learned, from whatever source, enough Japanese to qualify for more advanced courses. Designated to strengthen communicative skills of listening, speaking, grammar, and written forms for those with some Kanji knowledge. Conversation drill based on material covered in class. P/NP or letter grading.

2A. Elementary Modern Japanese for Kanji Native Students. (3) Lecture, three hours. Requisite: one year of Japanese placement test. Not open to students who have learned, from whatever source, enough Japanese to qualify for more advanced courses. Introduction to modern Japanese with attention to conversation, grammar, and written forms for those with some Kanji knowledge. Conversation drill based on material covered in class. P/NP or letter grading.

3A. Elementary Modern Japanese for Kanji Native Students. (8) Lecture, two hours; discussion, three hours. Requisite: course 3 with Japanese placement test. Not open to students who have learned, from whatever source, enough Japanese to qualify for more advanced courses. Continuation of course 2. P/NP or letter grading.

3. Elementary Modern Japanese. (5) Lecture, three hours; discussion, two hours. Enforced requisite: course 2 with grade of C or better or Japanese placement test. Not open to students who have learned, from whatever source, enough Japanese to qualify for more advanced courses. Continuation of course 2. P/NP or letter grading.

4. Intermediate Modern Japanese. (5) Lecture, three hours; discussion, one hour. Requisite: course 3 or 8 with grade of C or better or Japanese placement test. Not open to students who have learned, from whatever source, enough Japanese to qualify for more advanced courses. Continuation of course 4. P/NP or letter grading.

5. Intermediate Modern Japanese. (5) Lecture, three hours; discussion, one hour. Requisite: course 4 with grade of C or better or Japanese placement test. Not open to students who have learned, from whatever source, enough Japanese to qualify for more advanced courses. Continuation of course 5. P/NP or letter grading.

6. Elementary Modern Japanese. (5) Lecture, three hours; discussion, one hour. Requisite: course 5 with grade of C or better or Japanese placement test. Not open to students who have learned, from whatever source, enough Japanese to qualify for more advanced courses. Continuation of course 6. P/NP or letter grading.

8. Elementary Japanese: Intensive. (15) Lecture, 10 hours; discussion, 10 hours. Not open to students who have learned, from whatever source, enough Japanese to qualify for more advanced courses. Intensive course equivalent to courses 1, 2, and 3. Introduction to fundamentals of standard Japanese, including pronunciation, Japanese characters, with emphasis on all four basic language skills—speaking, listening comprehension, reading, and writing. Offered in summer only. P/NP or letter grading.

10. Intermediate Modern Japanese: Intensive. (15) Lecture, 10 hours; discussion, 10 hours. Enforced requisite: course 5 with grade of C or better or Japanese placement test. Not open to students who have learned, from whatever source, enough Japanese to qualify for more advanced courses. Continuation of course 5. P/NP or letter grading.

15. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.
with focus on linguistics features, writing summaries and opinions, oral activities, and project work. P/NP or letter grading.

100R. Third-Year Advanced Reading in Modern Japanese. (4) Lecture, three hours; discussion, one hour. Enforced requisite: course 6 or 10 with grade of C or better or Japanese placement test. Not open to students with credit for course 100A or who have learned, from whatever source, enough Japanese to qualify for more advanced courses. May be taken concurrently with course 100A. Development of overall competency in reading advanced-level Japanese materials. Instruct in understanding and analyzing practical expressions, as well as expansion of kanji and vocabulary to achieve higher ability in comprehension of written materials in Japanese. Translations from Japanese to English, as well as from English to Japanese. P/NP or letter grading.

100S. Advanced Modern Japanese: Intensive. (12) Lecture, 10 hours; discussion, 10 hours. Enforced requisite: course 6 or 10 with grade of C or better or Japanese placement test. Not open to students who have learned, from whatever source, enough Japanese to qualify for more advanced courses. Intensive course equivalent to courses 100A, 100B, and 100C. Learning Japanese grammar in the context of social-cultural issues of contemporary Japanese society. Materials selected from contemporary publications, videos, and audiotapes. Reading with focus on linguistic features, writing summaries and opinions, oral activities, and project work. Offered in summer only. P/NP or letter grading.

101A-101B-101C. Fourth-Year Japanese: Advanced Reading. (4–4–4) Lecture, three hours. Enforced requisite: course 100C or 100S with grade of C or better or Japanese placement test. Not open to students who have learned, from whatever source, enough Japanese to qualify for more advanced courses. Advanced readings and discussion for students planning to do advanced coursework or research on Japan. Topics selected from magazines, journals, and books related to Japan in P/NP or letter grading. 101B-101C. May be repeated for credit.

101S. Fourth-Year Japanese: Advanced Reading—Intensive. (12) Lecture, 10 hours; discussion, 10 hours. Enforced requisite: course 100C or 100S with grade of C or better or Japanese placement test. Not open to students who have learned, from whatever source, enough Japanese to qualify for more advanced courses. Advanced readings and discussion for students planning to do advanced coursework or research on Japan. Topics selected from magazines, journals, and books related to Japan in P/NP or letter grading.

103A-103B-103C. Fourth-Year Japanese: Advanced Speaking I, II, III. (4–4–4) Lecture, three hours; discussion, one hour. Enforced requisite: course 100C or 100S with grade of C or better. Development of listening and speaking abilities for students who need focused attention to these skills. Also suitable for graduate students who need to advance their practical speaking ability. Not intended for those who are at higher level in these skill areas, P/NP or letter grading.

104. Business Japanese. (4) Lecture, three hours; discussion, one hour. Enforced requisite: course 100C or 100S with grade of C or better or Japanese placement test. Designed to improve skills in Japanese in the context of business transactions. To be successful business person, one must be equipped with advanced specialized oral and written communication skills, including accurate business reports, oral and written business communication, social etiquette, business conduct, Japanese economic and business climate, business law and regulations, receipt of popular action film genres from Japan such as chambera or samurai film and yakuzka film. Consideration also of their relationship to international film culture and genre (e.g., Hollywood Western, gangster film, Chinese martial arts cinema, and contemporary Hollywood blockbusters) in context of broader historical transformations in media practices and in modes of distribution and reception. Study of theoretical debates, institutional practices, and ethical and political questions that inform our inquiries into moving image as action, and into action as through media as aesthetic/public, education, and problem of social and political movements.

98HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

100A-100B-100C. Advanced Modern Japanese. (4–4–4) Lecture, three hours; discussion, one hour. Enforced requisite: course 6 or 10 with grade of C or better or Japanese placement test. Course 100A with grade of C or better or Japanese placement test is enforced requisite to 100B; course 100B with grade of C or better or Japanese placement test is enforced requisite to 100C. Not open to students who have learned, from whatever source, enough Japanese to qualify for more advanced courses. Learning Japanese language with emphasis on Japanese grammar and vocabulary as related to current issues of contemporary Japanese society. Materials selected from contemporary publications, videos, and audiotapes. Reading
nese literature. Each course may be taken inde-
pendently for credit. Letter grading. 140A. Heian;
140B. Medieval; 140C. Edo.
C149. Introduction to Kambun and Other Literary Styles. (4) Lecture, three hours; discussion, one hour. Enforced requisites: course 110A. Introduction to Kambun, Japanese literary rendering of premodern Sino-Japanese, and So-
robun, epistolary style. Concurrently scheduled with course 140B. Letters grading.
C150. Topics in Japanese Literature and Philosophy. (4) Lecture, three hours; discussion, one hour. Knowledge of Japanese not required. Discussion of philos-
ophical topics such as identity, value, technology, in light of Japanese literary texts. Concurrently scheduled with course C250. Letter grading.
151. Japanese Literature in Translation: Modern. (4) Lecture, three hours; discussion, one hour. Requisite: English Composition 3 or 3H or one course from Comparative Literature 1A, 1B, 1C, 1D. Knowledge of Japanese not required. Survey of Japanese literature from 18th century to post-World War II. P/NP or letter grading.
154. Postwar Japanese Culture through Literature. (4) Lecture, three hours; discussion, one hour. Requi-
site: Japanese Composition 3 or 3H or one course from Comparative Literature 1A, 1B, 1C, 1D. Knowledge of Japanese not required. Exploration of Japanese culture in postwar era in broad cross-
disciplinary and cross-cultural context. P/NP or letter grading.
155. Topics in Japanese Cinema. (4) Lecture, three hours; discussion, one hour. Enforced requisites: Film viewing, two hours. Knowledge of Japanese not required. Critical and his-
156. Literature and Technology. (4) (Same as Comparative Literature M176.) Lecture, three hours. Knowledge of Japanese not required. Examination of representation of technology in 20th-century fiction. Discussion of impact of technology on shifting images of gender, subjectivity, and national identity. P/NP or letter grading.
157. Classical Japanese Drama: Great Tradition. (4) Lecture, three hours. Knowledge of Japanese not re-
C159. Variable Topics in Culture and Society in Ja-
pan. (4) Lecture, three hours; discussion, one hour. Knowledge of Japanese not required. Examination of relationship between culture (art, literature, film) and society in Japan. Reading, audio and visual material, discussion, and development of culminating project. May be repeated for credit with topic change. Concurrently scheduled with course C259. P/NP or letter grading.
C160. Japanese Buddhism. (4) (Same as Religion M161B.) Lecture, three hours; discussion, one hour. Knowledge of Japanese language also recommended. Development of Buddhism in Japan in its cultural context, with em-
phasis on key ideas and teachings. Concurrently scheduled with course C260. Letter grading.
161. Religious Life in Modern Japan. (4) Lecture, three hours; discussion, one hour. Knowledge of Japa-
ese not required. Religious transformations accom-
panying rapid industrialization, urbanization, milita-
rism, and defeat in Pacific War, including analysis of Shinto mythology, secular positivism, Buddhist re-
form movements, new religions, and continuing role of traditional village/family religious rites. Letter grading.
170. Japanese Tales of Supernatural. (4) Lecture, three hours; discussion, one hour. Knowledge of Japa-
nese not required. Readings of fictional works that feature supernatural beings, including Shinto gods, Buddha, bodhisattvas, Yin-yang diviners, ghosts, various types of demons, shape-shifting foxes and raccoon dogs, snakes, and dragons. Exploration of different treatments of the supernatural, from premodern to modern times, and of relationship between supernatural literature and expressions of fear, cruelty, violence, misogyny, desire, hope, compassion, and humor. Letter grading.
171. Topics in Japanese Studies. (4) Lecture, three hours. Enforced requisite: course 100C or Japanese placement test. Advanced course that explores Japa-
nese culture through in-depth reading of Japanese-
language texts and visual documents. Topics in-
clude literature, religion, folklore, cultural history, lan-
guage, and society. Concurrently scheduled with course C271. P/NP or letter grading.
172. Fiction and Plays of Floating World. (4) Lecture, three hours; discussion, one hour. Enforced re-
quiste: course 50. Examination of broad selection of popular fiction and theater from late 17th to early 19th century, with focus on theme of floating world (ukiyo) of entertainment, including pleasure quarters, theater district, and realm of fiction. Letter grading.
174. Classical Japanese Poetry. (4) Lecture, three hours; discussion, one hour. Knowledge of Japanese not required. Examination of classical poetry of Nara and Heian periods, poetry and prose called Man'yoshu (Collection of Myriad Ages, 8th cen-
C182. Japanese Folklore. (4) Lecture, three hours; discussion, one hour. Knowledge of Japanese not re-
qured. Lectures/discussions on native religious rituals (festivals) and observances of Japanese, with special emphasis on artistic behavior. Discussion of Shinto, Shinto/Buddhist syncretism, and other non-Buddhist belief systems. Concurrently scheduled with course C282. Letter grading.
187SL Service Learning in Japanese Community. (4) Lecture, three hours; fieldwork, three hours min-
189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate seminar. Readings on topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible stu-
dents. Honors content noted on transcript. P/NP or letter grading.
189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. De-
signed as adjunct to upper-division lecture course. In-
dividual study with lecture course instructor to explore topics in greater depth through supplemental read-
ings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract re-
quired. Honors content noted on transcript. Letter grading.
191A. Variable Topics Research Seminars: Classical Japan. (4) Seminar, three hours. Research seminar on selected topics in premodern Japanese literature and thought. Reading, discussion, and development of culminating project. May be repeated for credit. Letter grading.
191B. Variable Topics Research Seminars: Modern Japan. (4) Seminar, three hours. Research seminar on selected topics on modern Japan. Reading, discus-
sion, and development of culminating project. May be repeated for credit. Letter grading.
191C. Variable Topics Research Seminars: Person-
alities in Japanese Civilization. (4) Seminar, three hours. Research seminar on selected topics. Reading, discussion, and development of culminating project. May be repeated for credit. Letter grading.
197. Individual Studies in Japanese. (4) Tutorial, to be arranged. Limited to juniors/seniors and graduate stu-
dents who desire more advanced or specialized in-
struction in Japanese. Individual intensive study, with some meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required; see undergraduate advisor. P/NP or letter grading.
Graduate Courses
200. Japanese Studies Seminar. (4) Seminar, three hours. Selected topics on introduction to major bibli-
ographical and methodological resources in field of Japanese studies. May be repeated for credit with topic change. Letter grading.
201A-201B. Introduction to Reading Japanese Aca-
demic Texts. (4–4) Lecture, three hours. Requisite: course 100A or 100R. Course 201A is required to 201B. Designed for graduate students. Introduction to modern Japanese-language academic texts, both prewar and postwar, with focus only on reading; stu-
dents who need to improve other skills should take additional courses. S/U or letter grading.
C212. Japanese Urban History and Culture. (4) Lecture, three hours. Knowledge of Japanese not re-
quired. Japanese urban history and culture, with spec-
al emphasis on cities of Nara, Kyoto, Edo/Tokyo, and Nagasaki. Concurrently scheduled with course C112. S/U or letter grading.
C222. Japanese Phonology and Morphology. (4) Lecture, three hours; discussion, one hour. Recom-
manded preparation: Linguistics 20. Enforced requi-
site; course 3 or 8 and Japanese placement test. Survey of Japanese phonetics, phonology, and morphology. Concurrently scheduled with course CM122. Letter grading.
224A-224B. Seminars: Selected Topics in Japanese Discourse Linguistics. (4–4) Seminar, three hours. Requisite: course CM122. Critical reading and discus-
sion of selected topics in Japanese discourse linguis-
tics. May be repeated for credit with consent of in-
structor. In Progress (224A) and letter (224B) grading.
226. Survey of Functional Linguistics. (4) Lecture, four hours. Survey of recent empirical and theoretical research in several areas of functional linguistics, that has served as backbone for development of Japanese discourse linguistics. May be repeated for credit with consent of instructor. S/U or letter grading.
CM227. Contrastive Analysis of Japanese and Kore-
an. (4) (Same as Korean CM227.) Lecture, three hours; discussion, one hour. Recommended preparation: two years of Japanese and knowledge of Hangul, or two years of Korean and knowledge of Hiragana. Prior lin-
guistic background also recommended. Critical reading and discussion of selected current research papers in syntax, pragmatics, discourse, and sociolin-
guistics from the perspective of contrastive study of Japa-
228. Fundamentals in Discourse Data Analysis. (4) Lecture, three hours. Designed to prepare students to conduct research in discourse analysis. Course data, both spoken and written, for linguistic analysis. Discussion of discourse taxonomy, data collection methodolo-
gies, data organization, analytical frameworks. Letter grading.
235A-235B. Seminars: Selected Topics in Modern Japanese Fiction. (4–4) Seminar, three hours. May be repeated for credit with consent of instructor. In Prog-
ress (235A) and letter (235B) grading.
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Korean

Lower-Division Courses

1. Elementary Modern Korean. (5) Lecture, three hours; discussion, two hours. Not open to students who have learned, from whatever source, enough Korean to qualify for more advanced courses. Introduction to standard spoken Korean and Korean writing, with emphasis on conversation. P/NP or letter grading.

2. Elementary Modern Korean. (5) Lecture, three hours; discussion, two hours. Not open to students who have learned, from whatever source, enough Korean to qualify for more advanced courses. Continuation of course 1. P/NP or letter grading.

3A. Intermediate Korean for Korean-Heritage Speakers. (5) Lecture, three hours; discussion, one hour. Enforced requisite: course 1A with grade of C or better or Korean placement test. Not open to students who have learned, from whatever source, enough Korean to qualify for more advanced courses. Designed for students who are from Korean-speaking family backgrounds and have some limited knowledge of Korean, grammar, and Korean characters, with emphasis on all four basic language skills—speaking, listening comprehension, reading, and writing. Offered in summer only. P/NP or letter grading.

4A. Intermediate Korean for Korean-Heritage Speakers. (5) Lecture, five hours. Enforced requisite: course 4A with grade of C or better or Korean placement test. Not open to students who have learned, from whatever source, enough Korean to qualify for more advanced courses. Continuation of course 3A. P/NP or letter grading.

4B. Intermediate Korean for Korean-Heritage Speakers. (5) Lecture, five hours. Enforced requisite: course 4B with grade of C or better or Korean placement test. Not open to students who have learned, from whatever source, enough Korean to qualify for more advanced courses. Continuation of course 3A. P/NP or letter grading.

5. Intermediate Modern Korean. (5) Lecture, three hours; discussion, one hour. Enforced requisite: course 4A with grade of C or better or Korean placement test. Not open to students who have learned, from whatever source, enough Korean to qualify for more advanced courses. Continuation of course 4A. P/NP or letter grading.

6. Intermediate Modern Korean. (5) Lecture, three hours; discussion, one hour. Enforced requisite: course 5A with grade of C or better or Korean placement test. Not open to students who have learned, from whatever source, enough Korean to qualify for more advanced courses. Continuation of course 5A. P/NP or letter grading.

7. Intermediate Modern Korean. (5) Lecture, three hours. Enforced requisite: course 5A with grade of C or better or Korean placement test. Not open to students who have learned, from whatever source, enough Korean to qualify for more advanced courses. Continuation of course 5A. P/NP or letter grading.

8. Elementary Korean: Intensive. (15) Lecture, 10 hours; discussion, 10 hours. Not open to students who have learned, from whatever source, enough Korean to qualify for more advanced courses. Intensive course equivalent to courses 1, 2, and 3. Introduction to fundamentals of standard Korean, including pronunciation, grammar, and Korean characters, with emphasis on all four basic language skills—speaking, listening comprehension, reading, and writing. Offered in summer only. P/NP or letter grading.

9. Modern Korean: Intensive. (15) Lecture, 10 hours; discussion, 10 hours. Recommended preparation: course 3A, 3B, or 4A. Not open to students who have learned, from whatever source, enough Korean to qualify for more advanced courses. Intensive course equivalent to courses 4, 5, and 6. Conversation, composition, and reading with structural analysis in modern Korean. Offered in summer only. P/NP or letter grading.

10. Modern Korean: Intensive. (15) Lecture, 10 hours; discussion, 10 hours. Consideration of current intellectual importance, taught by faculty members in their areas of expertise and illustrating many paths of discovery at UCLA. P/NP grading.

11. Introduction to the Korean popular culture and its relationship to transnational social and political contexts. P/NP or letter grading.
40W. Korean Wave: Globalization of South Korean Popular Culture. (5) Lecture, two and one half hours; discussion, one hour. Enforced requisite: English Composition 3. Not open for credit to students with credit for course 40. Knowledge of Korean not required. Introduction to Korean popular culture, with focus on representative global phenomenon of Korean Wave (Hallyu). Use of concepts that theorize transnational flows of culture and relationship between cultural and sociopolitical power as framework, with focus on different genres of media and their individual exemplars (music, drama, film, and television). Analysis to understand each as example of larger movement of culture across national borders from contexts of production to contexts of reception. Satisfies Writing II letter grading.

50. History of Korean Civilization. (5) Lecture, three hours; discussion, one hour. Knowledge of Korean not required. General survey of development of Korean civilization within context of political, social, and economic history. P/NP or letter grading.

506. Introduction to Korean Religions. (5) Same as Religion M606C. Lecture, three hours; discussion, three hours; one hour. Knowledge of Asian languages not required. General survey of history of religions in Korea—Shamanism, Confucianism, Buddhism, Christianity, Tongsugak, and some new religions—with focus on religious doctrines, practices, Korean characteristics, and social impacts. P/NP or letter grading.

70. Impacts of Korea, three hours; discussion, one hour. Knowledge of Korean language, literature, or language not required. Introduction to visual and textual representations of Korea. Letter grading.

75. Introduction to Korean Literature and Culture. (5) Lecture, three hours; discussion, one hour. Broad overview of cultural history of Korea, from premodern period into present. P/NP or letter grading.

80. Introduction to Korean Cinema. (5) Lecture, three hours; discussion, one hour. Broad overview of film history in beginning of 20th century into present. P/NP or letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual student under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

99. Research Student Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

101A-101B-101C. Advanced Readings in Modern Korean. (4–4–4) Lecture, three hours; discussion, one hour. Enforced requisite: course 100C or Korean placement test. Course 101A or Korean placement test is enforced requisite to 101B; course 101B or Korean placement test is enforced requisite to 101C. Advanced readings and discussion for students planning to do advanced coursework or research on Korea. Topics selected from magazines, journals, and books related to humanities and social sciences. P/NP (undergraduates), S/U (graduates), or letter grading.

101I. Advanced Korean Conversation. (3–3–3) Lecture, three hours. Requisite: course 100C or Korean placement test. Intensive course equivalent to courses 101A, 101B, and 101C. Learning advanced Korean language with emphasis on professional topics, whether those topics are familiar or not. May be taken concurrently with courses 101A, 101B, 101C, 102A, 102B, 102C, 106A, 106SL, or 107A. Development of professional and academic proficiency in oral and written Korean to understand many sociolinguistic and cultural references as well as variety of styles and forms pertinent to professional needs, meet demands of professional interactions, and carry out professional-level tasks in student specializations areas. Special attention to vocabulary development on professional level. Development of both interactive and noninteractive learning. Research projects to be assigned according to student interests. P/NP or letter grading.

107SL. Professional/Academic Korean and Community-Based Learning. (4) Lecture, three hours; fieldwork, two hours. Requisite: course 101C or Korean placement test. May not be taken concurrently with course 102A, 102B, or 102C. Development of professional and academic proficiency in oral and written Korean to understand many sociolinguistic and cultural references as well as variety of styles and forms pertinent to professional needs, meet demands of professional interactions, and carry out professional-level tasks in student specializations areas. Special attention to vocabulary development on professional level. Development of both interactive and noninteractive learning. Research projects to be assigned according to student interests. Opportunity for students to communicate in Korean in authentic professional and social settings while providing useful service to community. P/NP or letter grading.

108FL. Special Studies: Readings in Korean. (2) Seminar, two hours. Enforced requisite: course 100C or Korean placement test. Students must be concurrently enrolled in affiliated courses. Additional work in Korean to augment work assigned in main course, including reading, writing, and other exercises. May be repeated for credit. P/NP or letter grading.


104A-104B-104C. Korean Writing for Advanced Learners. (4–4–4) Lecture, three hours; discussion, one hour. Enforced requisite: course 101C or Korean placement test. Emphasis on academic writing in Korean, including rhetorical conventions, argument construction, and expression of personal voice. May be repeated for credit. Concurrently scheduled with courses C205A-C205B-C205C. Letter grading.

106A-106B-106C. Superior Korean. (4–4–4) Lecture, three hours. Recommended preparation: course 102A, or course 101A, 102A, 102B, or 102C. Use of speaking, listening, reading, and writing skills to participate effectively, or understand without difficulty any practical, social, and professional topics, including in formal and informal settings. May be repeated for credit. P/NP or letter grading.

106SL. Superior Korean with Service Learning. (4) Lecture, three hours; fieldwork, two hours. Recommended preparation: two years of high school Korean. Development of oral and written proficiency in Korean to understand many sociolinguistic and cultural references as well as variety of styles and forms pertinent to professional needs, meet demands of professional interactions, and carry out professional-level tasks in student specializations areas. Special attention to vocabulary development on professional level. Development of both interactive and noninteractive learning. Research projects to be assigned according to student interests. Concurrently scheduled with course C220. Letter grading.

107A-107B-107C. Professional/Academic Korean. (4–4–4) Lecture, three hours. Requisite: course 101C or Korean placement test. Course 107A or Korean placement test is required to 107B. May not be taken concurrently with course 102A, 102B, or 102C. Development of professional and academic proficiency in oral and written Korean to understand many sociolinguistic and cultural references as well as variety of styles and forms pertinent to professional needs, meet demands of professional interactions, and carry out professional-level tasks in student specializations areas. Special attention to vocabulary development on professional level. Development of both interactive and noninteractive learning. Research projects to be assigned according to student interests. P/NP or letter grading.

107SL. Professional/Academic Korean and Community-Based Learning. (4) Lecture, three hours; fieldwork, two hours. Requisite: course 101C or Korean placement test. May not be taken concurrently with course 102A, 102B, or 102C. Development of professional and academic proficiency in oral and written Korean to understand many sociolinguistic and cultural references as well as variety of styles and forms pertinent to professional needs, meet demands of professional interactions, and carry out professional-level tasks in student specializations areas. Special attention to vocabulary development on professional level. Development of both interactive and noninteractive learning. Research projects to be assigned according to student interests. Opportunity for students to communicate in Korean in authentic professional and social settings while providing useful service to community. P/NP or letter grading.

C205A-C205B-C205C. P/NP or letter grading.

CM120. Structure of Korean. (4) (Same as Linguistics M177.) Lecture, three hours; discussion, one hour. Recommended preparation: two years of Korean, or one year of Korean and knowledge of Japanese. Study of basic concepts in sociolinguistics, discourse analysis, and multimedia resources to analyze Korean language and culture. Study to increase understanding of variety of sociocultural variables of Korean language. Exploration of interrelationship among language, culture, and society by examining Korean popular media (e.g., film/television, comic books, music video, digital discourse, advertisement, etc.). P/NP or letter grading.


130A-130B. Readings in Modern Korean Literature. (4–4–4) Lecture, three hours. Enforced requisite: course 100C or Korean placement test. English Composition 3 or 3H or one course from Comparative Literature 1A, Asian Languages and Cultures / 245
1B, 1C, 1D. Readings and discussion of major modern Korean literary texts. Each course may be taken independently for credit. Letter grading.


C151. Korean Literature: Translation: Modern. (4) Lecture, three hours: discussion; one hour. Requisite: English Composition 3 or 3H or one course from Comparative Literature 1A, 1B, 1C, 1D. Knowledge of Korean not required. Survey of modern and contemporary Korean literature. Concurrently scheduled with course C251. P/NP or letter grading.

153. Korea West Encounters. (4) Lecture, three hours; discussion, one hour. Knowledge of Korean not required. Exploration of major cross-cultural encounters between Korea and West from late 16th to early 20th century and writings of leading historical figures. Letter grading.

154. Contemporary Korean Culture through Literature and Film. (4) Lecture, three hours; discussion, one hour. Requisite: English Composition 3 or one course from Comparative Literature 1A, 1B, 1C, 1D. Knowledge of Korean not required. Use of film and film to explore contemporary Korean culture in cross-cultural context. P/NP or letter grading.

155. Topics in Korean Cinema. (4) Lecture, one hour; discussion, one hour; film viewing, three hours. Knowledge of Korean not required. Introduction to contemporary Korean film. Offered in alternation with courses 251C or Korean placement test. Knowledge of Korean not required. Use of film to explore contemporary Korean culture in cross-cultural context. P/NP or letter grading.

159. Variable Topics in Culture and Society in Korea. (4–4–4) Lecture, three hours; discussion, one hour. Knowledge of Korean not required. Exploration of major cross-cultural encounters between Korea and West from late 16th to early 20th century and writings of leading historical figures. Letter grading.

160. Korean Buddhism. (4) (Same as Religion M161C.) Lecture, three hours; discussion, one hour. Knowledge of Korean not required. Introduction and development of Buddhism in Korea; interactions between indigenous Korean culture and Sinic traditions of Buddhism, Korean syntheses of imported Buddhist theological systems and meditative techniques, and independent Son (Zen) schools of Korea. Concurrently scheduled with course C260. Letter grading.


166. Korea and Vietnam: Comparative Modern Histories. (4) (Same as Vietnamese M186.) Seminar, three hours. Comparative survey of intertwined and parallel histories of Korea and Vietnam, organized chronologically, but structured around key themes that serve as basis for comparison. Modern experiences of colonized Vietnam and Korea have many significant parallels, including imposition of colonial control, transition to modern societies, emergence of colonial, and shared experiences of World War II. Both were also divided after war between communist regimes in north and strongly anti-communist regimes in south. Each also experienced war after division and direct involvement of U.S. during height of cold war between 1950s and 1970s. P/NP or letter grading.

187. Popular and Folk Religion in Korea. (4) Lecture, three hours; discussion, one hour. Knowledge of Korean not required. Examination of how gender roles and identities were socially (re)constructed over time, with focus on continual negotiation by women and men within larger processes of political, social, and cultural changes such as formation of centralized bureaucratic systems, rise of aristocratic social order, and propagation of Confucian social values. Letter grading.

188B. Women in History: Modern Korea. (4) Lecture, three hours; discussion, one hour. Knowledge of Korean not required. Examination of modern Korean history from perspective of women since mid-19th century. Consideration of how gender roles and identifications may change. Consideration of factors that focus on continual negotiation by women and men within larger processes of political, social, and cultural transformations. Discussion of issues such as changes in women’s education, employment, social/legal status, especially in context of colonialism, war, democratization, and economic development. P/NP or letter grading.

186. Education and Society in Korea. (4) Lecture, three hours. Knowledge of Korean not required. Coverage of historical legacies and current realities of education in Korea. Topics include Confucian background, colonial education, role of education in rapid economic development, and education as vehicle for social mobility, and problems related to excessive emphasis on education. P/NP or letter grading.

189. Korea and Vietnam: Comparative Modern Histories. (4) (Same as Vietnamese M186.) Seminar, three hours. Comparative survey of intertwined and parallel histories of Korea and Vietnam, organized chronologically, but structured around key themes that serve as basis for comparison. Modern experiences of colonized Vietnam and Korea have many significant parallels, including imposition of colonial control, transition to modern societies, emergence of colonial, and shared experiences of World War II. Both were also divided after war between communist regimes in north and strongly anti-communist regimes in south. Each also experienced war after division and direct involvement of U.S. during height of cold war between 1950s and 1970s. P/NP or letter grading.

187. Popular and Folk Religion in Korea. (4) Lecture, three hours; discussion, one hour. Knowledge of Korean not required. Examination of how gender roles and identities were socially (re)constructed over time, with focus on continual negotiation by women and men within larger processes of political, social, and cultural changes such as formation of centralized bureaucratic systems, rise of aristocratic social order, and propagation of Confucian social values. Letter grading.

188B. Women in History: Modern Korea. (4) Lecture, three hours; discussion, one hour. Knowledge of Korean not required. Examination of modern Korean history from perspective of women since mid-19th century. Consideration of how gender roles and identifications may change. Consideration of factors that focus on continual negotiation by women and men within larger processes of political, social, and cultural transformations. Discussion of issues such as changes in women’s education, employment, social/legal status, especially in context of colonialism, war, democratization, and economic development. P/NP or letter grading.

186. Education and Society in Korea. (4) Lecture, three hours. Knowledge of Korean not required. Coverage of historical legacies and current realities of education in Korea. Topics include Confucian background, colonial education, role of education in rapid economic development, and education as vehicle for social mobility, and problems related to excessive emphasis on education. P/NP or letter grading.

189. Korea and Vietnam: Comparative Modern Histories. (4) (Same as Vietnamese M186.) Seminar, three hours. Comparative survey of intertwined and parallel histories of Korea and Vietnam, organized chronologically, but structured around key themes that serve as basis for comparison. Modern experiences of colonized Vietnam and Korea have many significant parallels, including imposition of colonial control, transition to modern societies, emergence of colonial, and shared experiences of World War II. Both were also divided after war between communist regimes in north and strongly anti-communist regimes in south. Each also experienced war after division and direct involvement of U.S. during height of cold war between 1950s and 1970s. P/NP or letter grading.

187. Popular and Folk Religion in Korea. (4) Lecture, three hours; discussion, one hour. Knowledge of Korean not required. Examination of how gender roles and identities were socially (re)constructed over time, with focus on continual negotiation by women and men within larger processes of political, social, and cultural changes such as formation of centralized bureaucratic systems, rise of aristocratic social order, and propagation of Confucian social values. Letter grading.

188B. Women in History: Modern Korea. (4) Lecture, three hours; discussion, one hour. Knowledge of Korean not required. Examination of modern Korean history from perspective of women since mid-19th century. Consideration of how gender roles and identifications may change. Consideration of factors that focus on continual negotiation by women and men within larger processes of political, social, and cultural transformations. Discussion of issues such as changes in women’s education, employment, social/legal status, especially in context of colonialism, war, democratization, and economic development. P/NP or letter grading.
191B. Variable Topics Research Seminars: Contemporary Korean History. (4) Seminar, three hours. Research seminar on selected topics in modern Korean history. Reading, discussion, and development of culminating project. May be repeated for credit. Letter grading.

197. Individual Studies in Korean. (4) Tutorial, to be arranged. Limited to juniors/seniors and graduate students. May be repeated for credit. Individual contract required; see undergraduate advisor. P/NP or letter grading.

Graduate Courses

200. Bibliography and Methods of Research in Korean. (4) Lecture, three hours. Requisites: course 101C, Chinese 110C. Review of basic Western and modern Korean reference books, with concentration on Korean literature and language, and survey of basic bibliographical material. In addition, introduction to most important primary sources in student’s field of specialization. Letter grading.

203. Variable Topics in Korean Culture. (4) Seminar, three hours. Advanced course that explores Korean culture through in-depth reading of Korean-language texts and/or visual documents. Topics include literature, religion, folklore, cultural history, language, and society. May be repeated for credit. S/U or letter grading.

224A-224B. Seminars: Selected Topics in Korean Linguistics. (4–4) Seminar, three hours. Critical reading and discussion of selected topics in Korean functional linguistics (grammaticalization, discourse, pragmatics, sociolinguistics, syntax, morphology, or phonology) and pedagogy. In Progress (224A) and letter (224B) grading.


C224A-224B. Seminars: Selected Topics in Korean Linguistics. (4) Seminar, three hours. Critical reading and discussion of selected topics in Korean functional linguistics (grammaticalization, discourse, pragmatics, sociolinguistics, syntax, morphology, or phonology) and pedagogy. In Progress (224A) and letter (224B) grading.


229A-229B. Seminars: Classical Korean Fiction. (4–4) Seminar, three hours. Preparation: reading knowledge of Korean. In consultation with instructor, students select works to be translated. Devoted to skill of producing accurate and readable translations, with emphasis on problems and techniques unique to poetry and prose. At end of term, students expected to produce publishable translations. May be repeated once with consent of instructor. In Progress (229A) and letter (229B) grading.

C230A-230B. Seminars: Literary Translation from Korean. (4–4) Seminar, three hours. Preparation: reading knowledge of Korean. Designed for graduate students. Critical examination of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.


272. Seminar: Korean Christianity. (4) Seminar, three hours. Coverage of representative scholars’ writings on history of Korean Christianity, with focus on Protestantism. Issues include politics, identities of Korean Christians and Western missionaries, church growth and decline, medical, educational, literary, and woman’s work, and Christianity’s encounters with Korean religions, and foreign missions. S/U or letter grading.

274. Seminar: Readings in Korean Christianity. (4) Seminar, three hours. Reading of recent secondary sources of Christianity in Korea, covering doctoral dissertations, journal articles, book chapters, and books in English and Korean to help graduate students understand recent scholarship on diverse topics in Korean Christianity. Letter grading.


295A-295B. Seminars: Topics in Traditional Korean History. (4–4) Seminar, three hours. Preparation: reading knowledge of Korean or literary Chinese. Discussion and research on major topics in Korean cultural history, such as Confucianism in 14th century to 20th century. Letter grading.

296A-296B. Seminars: Topics in Modern Korean History. (4–4) Seminar, three hours. Preparation: reading knowledge of Korean or literary Chinese. Discussions and research on major topics in Korean cultural history, such as Confucianism in 14th century to 20th century. Letter grading.

South Asian Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.
Upper-Division Courses

110A. Elementary Sanskrit. (4) Lecture, three hours. Introduction to script and grammar, with reading exercises and attention to significance of Sanskrit for understanding of other Indo-European languages. P/NP or letter grading.


110C. Advanced Sanskrit. (4) Lecture, three hours. Requisite: course 110B. Reading of entire Bhagavadgita or comparable amount of other Sanskrit literature. P/NP or letter grading.

115. Topics in South Asian Cinema and Literature. (4) Lecture, three hours. Knowledge of Hindi/Urdu not required. Critical analysis of language and culture in South Asian diaspora as represented in films and/or literature. May be repeated once for credit. P/NP or letter grading.

CM160. Buddhism in India. (4) (Same as Religion M161D.) Lecture, three hours; discussion, one hour. Knowledge of Indian languages not required. Overview of social and doctrinal history of Buddhism from its origin to its disappearance in India, based not only on texts but also on archaeological, art historical, and inscriptive sources. Examination of both formal doctrine and actual practices and on what learned Buddhists did, saw, and made. Concurrently scheduled with course CM160. Letter grading.

170. Variable Topics in South Asian Linguistics, Languages, and Cultures. (4) Lecture, three hours. Knowledge of Hindi/Urdu may be required. Critical analysis of language and culture in South Asian linguistic area, exploring notions of India as linguistic area and as cultural area. May be repeated for credit. P/NP or letter grading.

175. Introduction to Indian Philosophy. (4) Lecture, three hours. Survey of main trends in Indian philosophy from ancient to modern times. P/NP or letter grading.

185. Women and Gender in Ancient India. (4) Requisite: course 110B. Advanced aspects of Sanskrit, Pali, and/or Prakrit texts. S/U grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Described as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

199. Student Research Program. (1 to 2) Limited to students in College Honors Program. Described as adjunct to upper-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

199HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Described as adjunct to upper-division lecture course. Individual study with course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

Graduate Courses


230. Selected Readings in Sanskrit Texts. (4) Lecture, three hours. May be repeated for credit with consent of instructor. S/U or letter grading.

234A-234B. Introduction to Panini’s Grammar. (4–4) Lecture, three hours. Requisite: course 110C. Reading of selected passages of text, with introduction to Panini’s technique. S/U or letter grading.


238A. Panini’s Grammar. (4) Lecture, two hours. Examination of both formal doctrine and actual practices on what learned Buddhists did, saw, and made. Concurrently scheduled with course CM160. Letter grading.

Southeast Asian Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

20. Visible Language: Study of Writing. (5) (Same as Asian M20, Indo-European Studies M20, Near Eastern Languages M20, and Slavic M20.) Lecture, three hours; discussion, one hour. Consideration of concrete meanings of language representation in writing systems. Earliest representations of language known are those of Near East dating to end of 4th millennium BCE. While literate civilizations of ancient Indus Valley, China, and Mesoamerica left little evidence of corresponding earliest developments, their antiquity and, in case of China and Mesoamerica, their evident isolation mark these centers as loci of independent development. Examination of position and function of both formal doctrine and actual practices and on what learned Buddhists did, saw, and made. Concurrently scheduled with course CM160. Letter grading.

Upper-Division Courses

C120. Ghosts, Spirits, and Witches: Supernatural in Southeast Asia. (4) Lecture, two hours; discussion, one hour. From magical tattoos, tree spirits, and faith healing to angry ghosts and disemboweled flying vampires, exploration of the unusual and otherworldly world of Southeast Asia through folk tales, urban myths, published accounts, popular films, and other media. Study of wide variety of supernatural creatures and
local specialists that populate imagination of this di-
130. Topics in Southeast Asian Literature. (4) Lec-
ture, three hours. Requisite: one course from Compar-
verse region. Topics include history, culture, lan-
135. Religion and Society in Southeast Asia. (4) Lec-
ture, three hours; discussion, one hour. Critical issues
117. Individual Studies in Southeast Asian. (4) Tuto-
pathways to supernatural phenomena in modern world. Concurrently scheduled with course C220. P/NP or letter grading.

Graduate Courses

205. Southeast Asian Culture and History. (4) Sem-

3R. Thai Scripts. (5) Lecture, three hours. Course 3R with grade of C or better is 

136. Majorities and Minorities in Southeast Asia. (4) Lecture, two hours; discussion, one hour. Focus on

140. Zomia: Peoples, Societies, and Cultures of Upland Southeast Asia. (4) Lecture, three hours; discus-

215. Individual Peoples of Southeast Asia. (4) Lecture, two hours; discussion, one hour. In Southeast

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Thai

Lower-Division Courses

1. Introductory Thai. (5) Lecture, three hours; discus-

2. Introductory Thai. (5) Lecture, three hours; discus-

3. Introductory Thai. (5) Lecture, three hours; discus-

3R. Thai Scripts. (5) Lecture, five hours. Recommen-
ded preparation: speaking and listening skills in Thai and Thai placement test. Training in reading and writing at introductory level. Completion of course 3R is equivalent to completion of one year of college-level Thai. P/NP or letter grading.

4. Intermediate Thai. (5) Lecture, five hours. Rein-
forcement of basic Thai grammar and coverage of more advanced topics. Broadening of skills in conversa-
tion and composition; reading of selected texts. P/NP or letter grading.

5. Intermediate Thai. (5) Lecture, five hours. En-
forced requisite: course 4 with grade of C or better. Reinforcement of basic Thai grammar and coverage of more advanced topics. Broadening of skills in conversa-
tion and composition; reading of selected texts. P/NP or letter grading.

6. Intermediate Thai. (5) Lecture, five hours. En-
forced requisite: course 5 with grade of C or better. Reinforcement of basic Thai grammar and coverage of more advanced topics. Broadening of skills in conversa-
tion and composition; reading of selected texts. P/NP or letter grading.

19. Flat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-divi-
sion lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible stu-
dents. Honors content noted on transcript. Letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. De-
signed as adjunct to lower-division lecture course. In-
dividual study with lecture course instructor to explore topics in greater depth through supplemental read-
ings, papers, or other activities. May be repeated for credit. Individual contract required; see academic coordinator. P/NP or letter grading.

Upper-Division Courses

100A-100B-100C. Advanced Thai. (4-4-4) Lecture, three hours. Course 100B with grade of C or better is requisite to 100B; course 100B with grade of C or better is requisite to 100C. Reinforcement of basic grammar and vocabulary acquired at beginning and intermediate levels. Coverage of more advanced topics on various aspects of Thai society. Broadening
of skills in conversation and composition. Reading of selected texts and authentic materials. P/NP or letter grading.

109. Advanced Tutorial Instruction in Thai. (2, Tuto- rial, two hours.) Enforced requisite: course 6 or Thai placement test. Tutorial and guided independent study to help students develop advanced to superior proficiency in oral and written Thai. May be repeated for credit. P/NP or letter grading. Honors content noted on transcript. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities not led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental read- ings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract re- quired. Honors content noted on transcript. Letter grading.

Vietnamese

Lower-Division Courses

1. Introductory Vietnamese. (5) Lecture, two hours; discussion, three hours. Coverage of basic Viet- namese grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

1A. Introductory Vietnamese for Heritage Learners. (5) Lecture, two hours; discussion, three hours. Not open to students who have learned, from whatever source, enough Viet- namese to qualify for more advanced courses. Designed for Vietnamese-heritage learners who have some limited knowledge of Viet- namese or have had no formal instruction in Viet- namese. Emphasis on spelling, basic grammar, reading, writing, daily conversation, and polite forms. P/NP or letter grading.

2. Introductory Vietnamese. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 1A with grade of C or better. Coverage of basic Viet- namese grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

1A. Introductory Vietnamese for Heritage Learners. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 1A with grade of C or better. Coverage of basic Viet- namese grammar, with equal emphasis on reading, writing, daily conversation, and polite forms. P/NP or letter grading.

2A. Introductory Vietnamese for Heritage Learners. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 1A with grade of C or better. Coverage of basic Viet- namese grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

3. Introductory Vietnamese. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 2A with grade of C or better. Coverage of basic Viet- namese grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

3A. Introductory Vietnamese for Heritage Learners. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 2A with grade of C or better. Coverage of basic Viet- namese grammar, with equal emphasis on reading, writing, daily conversation, and polite forms. P/NP or letter grading.

3R. Introductory Vietnamese Reading and Writing. (5) Lecture, five hours. Recommended preparation: reading and listening skills in Vietnamese. Training in reading and writing skills at elementary level, equivalent to completed year of Vietnamese. P/NP or letter grading.

4. Intermediate Vietnamese. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 3 with grade of C or better. Reinforcement of basic Viet- namese grammar and coverage of more advanced topics. Broadening of skills in conversation and com- position; reading of selected texts. P/NP or letter grading.

5. Intermediate Vietnamese. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 4 with grade of C or better. Reinforcement of basic Viet- namese grammar and coverage of more advanced topics. Broadening of skills in conversation and com- position; reading of selected texts. P/NP or letter grading.

6. Intermediate Vietnamese. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 5 with grade of C or better. Reinforcement of basic Viet- namese grammar and coverage of more advanced topics. Broadening of skills in conversation and com- position; reading of selected texts. P/NP or letter grading.

7. Elementary Vietnamese: Intensive. (15) Lecture, 10 hours; discussion, 10 hours. Intensive course equivalent to courses 1, 2, and 3. Coverage of basic Vietnamese grammar, with equal emphasis on reading, writing, conversation, and comprehension. Offered in summer only. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

40. War in Vietnamese Popular Culture. (5) Lecture, three hours; discussion, one hour. Recommended preparation: at least one Asian history course. Examination of Vietnamese society and culture from origins to early 19th century, with emphasis on examination of ways in which interactions between in- digenous and Chinese/Southeast Asian political and cultural forces helped shape modern Vietnamese society. Enforced requisite: course 6 with grade of C or better. Enforced requisite: course 3 with grade of C or better. Reinforcement of basic Viet- namese grammar and coverage of more advanced topics. Broadening of skills in conversation and com- position; reading of selected texts. P/NP or letter grading.

99. Student Research Program. (1 to 2) Seminar, three hours. Limited to undergraduate lecture course. Exploration of topics in greater depth through supplemental read- ings, papers, or other activities. May be repeated for credit. P/NP or letter grading. Honors content noted on transcript. P/NP or letter grading.

M186. Korea and Vietnamese: Comparative Modern Histories. (4) (Same as Korean M186.) Seminar, three hours. Comparative surveys of the parallel histories of Korea and Vietnam, organized chronologi- cally, but structured around key themes that serve as a basis for comparison. Modern experiences of colo- nialism in Vietnam and Korea have many significant parallel, including imposition of colonial control, transition to modernized societies within context of colonialism, and shared experiences of World War II. Both were also divided after war between communist regimes in north and strongly anticommunist regimes in south. Each also experienced warfare after division and dis- location of U.S. during height of cold war between 1950s and 1970s. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible stu- dents. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental read- ings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract re- quired. Honors content noted on transcript. Letter grading.

Upper-Division Courses

100A-100B-100C. Advanced Vietnamese. (4-4-4) Lecture, two hours; discussion, one hour. Enforced requisite: course 6 with grade of C or better or Vietnamese placement test. Designed to strengthen and build on language skills previously acquired at beginning and intermediate levels. Content-based readings and discussion, with various aspects of Vietnam, particularly its culture. Readings include both authentic original works and simplified texts. Each course may be taken inde- pendently for credit. P/NP or letter grading.

109. Advanced Tutorial Instruction in Vietnamese. (2) Tutorial, two hours; discussion, one hour. P/NP or letter grading. Honors content noted on transcript. P/NP or letter grading.

CM155. Topics in Vietnamese Cinema and/or Litera- ture. (4) (Same as Asian American Studies M173.) Lecture, three hours; discussion, one hour. Knowledge of Vietnamese not required. Critical and historical ex- amination of literary and/or filmic representations con- nected to social practices such as empire, nation, di- aspora, and globalization. Original language course materials available for interested students. May be concurrently scheduled with course C265. P/NP or letter grading.

155FL. Readings in Vietnamese. (2) Seminar, two hours. Requisite: course 3 or 3A. Enforced corequisite: course M155. Additional work in Vietnamese to aug- ment work assigned in course M155, including reading, writing, and other exercises in Vietnamese. P/NP or letter grading.

170. Variable Topics in Vietnamese Linguistics, Lan- guages, and Cultures. (4) Lecture, three hours. Enforced requisite: course 6 or Vietnamese placement test. Knowledge of Vietnamese may be required. Critical analysis of language and culture in Vietnam, exploring notion of Vietnam as culture area, surveying literary landscape through poetics and philosophies. May be repeated for credit. P/NP or letter grading.

180A. Vietnam: History and Civilization to 1858. (4) Lecture, three hours; discussion, one hour. Recom- mended preparation: at least one Asian history course. Exploration of Vietnamese society and culture through different periods of Vietnamese history: from modernized societies within context of colonialism, transition to modernized societies within context of colonialism, and shared experiences of World War II. Both were also divided after war between communist regimes in north and strongly anticommunist regimes in south. Each also experienced warfare after division and dis- location of U.S. during height of cold war between 1950s and 1970s. P/NP or letter grading.

180B. Vietnam: History and Civilization, 1858 to Present. (4) Lecture, three hours; discussion, one hour. Recommended preparation: at least one Asian history course. Exploration of Vietnamese society and culture through different periods of extended political and military con- flict. P/NP or letter grading.

M186. Korea and Vietnamese: Comparative Modern Histories. (4) (Same as Korean M186.) Seminar, three hours. Comparative surveys of the parallel histories of Korea and Vietnam, organized chronologi- cally, but structured around key themes that serve as a basis for comparison. Modern experiences of colo- nialism in Vietnam and Korea have many significant parallel, including imposition of colonial control, transition to modernized societies within context of colonialism, and shared experiences of World War II. Both were also divided after war between communist regimes in north and strongly anticommunist regimes in south. Each also experienced warfare after division and dis- location of U.S. during height of cold war between 1950s and 1970s. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible stu- dents. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental read- ings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract re- quired. Honors content noted on transcript. Letter grading.
Competencies
Demonstrated effective oral and written communication of results and conclusions of investigative work
- Identify, analyze, and understand real-world phenomena, problems of long-range weather forecasts, climate change, and predictions, and expanding scientific frontiers into our outer atmosphere and atmospheres of other planets.
- The Department of Atmospheric and Oceanic Sciences offers a broad curriculum in dynamic and synoptic meteorology, atmospheric physics and chemistry, and upper atmosphere and space physics.
- The Bachelor of Science (BS) degree qualifies students for entry-level technical positions or represents valuable background for training in other professions. Master of Science (MS) and Doctor of Philosophy (PhD) degree holders work in universities, research centers, laboratories, and government services and, increasingly, in the rapidly burgeoning private sector.

Requirements
Preparation for the Major
Required: Atmospheric and Oceanic Sciences 51, M71 (preferred) or Program in Computing 10A, 90; Chemistry and Biochemistry 1A4 and 1B4, or 20A and 20B; Life Sciences 30A and 30B, or Mathematics 3A, 3B, and 3C, or 31A, 31B, 32A, 32B, 33A, and 33B; Physics 1A, 1B, and 1C, or 1AH, 1BH, and 1CH, or 5A, 5B, and 5C.
- Students interested in pursuing graduate studies in atmospheric and oceanic sciences or obtaining employment with the National Weather Service or other government agencies are strongly urged to select the Mathematics 31A through 33B sequence and the Physics 1 sequence.

The Major
Required: Four courses from Atmospheric and Oceanic Sciences 101, 103, 104, M105, 107, 112, three additional upper-division atmospheric and oceanic sciences courses selected in consultation with the undergraduate advisers, and two upper-division courses from a list of chemistry, mathematics, physics, and statistics courses selected in consultation with the undergraduate advisers.

Policies
The Major
Atmospheric and Oceanic Sciences 199 (independent research) taken for 4 units may be units to satisfy one upper-division elective. Thesis approval required from faculty adviser and submitted to department student affairs officer.

Atmospheric and Oceanic Sciences/Mathematics BS
Capstone Major
The Atmospheric and Oceanic Sciences/Mathematics major is a designated capstone major.
- Students acquire experience in conceiving and executing research projects designed to evaluate hypotheses and complete an individual project or thesis selected with the assistance of the program advisers and faculty mentor. The topic should reflect integrative application of mathematics to atmospheric and oceanic sciences. Students are expected to prepare a significant independent piece of work that applies knowledge gained in their coursework in a new and unique way.

Learning Outcomes
The Atmospheric and Oceanic Sciences/Mathematics major has the following learning outcomes:
- Display mastery of basic principles and tools of science: calculus, physics, chemistry, computer programming, and writing
- Display fundamental understanding of atmospheric and oceanic sciences
- Demonstrated analytical and mathematical skills through application of learned concepts and tools to solve theoretical, computational, and empirical problems
- Ability to apply knowledge to independently identify, analyze, and understand real-world problems and issues
- Demonstrated effective oral and written communication of results and conclusions of investigative work
- Transfer students must complete as many of the following introductory courses as possible prior to admission to UCLA: one year of calculus, one year of calculus-based physics, and one semester of general chemistry.
• Fundamental knowledge of the atmospheric and oceanic sciences, and the mathematical tools that enable research to be conducted
• Identification of potential research areas of interest
• Experience in conceiving and executing research projects designed to evaluate hypotheses through courses that stress oral and written presentation of research results
• Proposition, execution, and evaluation of a research project with the assistance and supervision of a faculty mentor
• Tangible capstone product, such as a written thesis, that will be archived and possibly disseminated within and beyond the department

Entry to the Major

Transfer Students
Transfer applicants to the Atmospheric and Oceanic Sciences/Mathematics major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one and a half years of calculus through multivariable and one year of calculus-based physics.

Recommended before transfer for timely degree completion: linear algebra, differential equations, and one computer programming course (preferably in Python).

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major

Required: Atmospheric and Oceanic Sciences M71 or Program in Computing 10A, 90, Mathematics 31A, 31B, 32A, 32B, 33A, 33B, Physics 1A, 1B, 1C, and one course selected from Atmospheric and Oceanic Sciences 1, 2, 3, 5, 7, 51. Chemistry and Biochemistry 14A and 14B (or 20A and 20B) may also be required, depending on atmospheric and oceanic sciences upper-division course selection.

The Major

Required: Six mathematics courses, including Mathematics 115A, 131A, 134, and three elective courses selected from 115B, 131B, 135, 136, 142, 151A, 151B, 170A, 170B, one of which must be 115B, 131B, 151B, or 170B; six upper-division atmospheric and oceanic sciences courses, including two core courses selected from Atmospheric and Oceanic Sciences 101, 103, 112, and two elective courses selected from C110, C115, M120, C144, C160, C170, 180, and any two additional upper-division atmospheric and oceanic sciences courses.

One capstone senior projects/thesis course, Atmospheric and Oceanic Sciences 198, taken for 4 units, is also required. An individual project or thesis to be selected with the assistance of the program advisers and a faculty mentor must be completed. Thesis approval required from faculty adviser and submitted to department student affairs officer.
anic Sciences 101, 104, Ecology and Evolutionary Biology 109, C119A, 122; (3) atmospheric dynamics: Atmospheric and Oceanic Sciences 101, 102, Physics 112, 131, 132; (4) atmospheric dynamics and mathematical modeling: Atmospheric and Oceanic Sciences 101, 103, 104, Ecology and Evolutionary Biology 109, 123A or 123B, 147, 148; (6) upper atmosphere: Atmospheric and Oceanic Sciences 101, M120, C170, Physics 110A, 110B, M122.

Policies
A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

One course may be taken on a Passed/Not Passed basis; each of the other minor courses must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Major
Atmospheric and Oceanic Sciences MS, CPhil, PhD

Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Atmospheric and Oceanic Sciences

Lower-Division Courses
1. Climate Change: From Puzzles to Policy. (4) Lecture, three hours; discussion, one hour. Overview of fundamentals of Earth's climate, including greenhouse effect, water and chemical cycles, outstanding features of atmospheric and ocean circulation, and feedback between different system components. Exciting and contentious scientific puzzles of climate system, including causes of ice ages, greenhouse warming, and el niño. Importance of climate science and prediction to society, with emphasis on science's role in identifying, qualifying, and solving environmental problems such as ozone hole and greenhouse warming. P/NP or letter grading.

2. Air Pollution. (4) Lecture, three hours; discussion, one hour. Causes and effects of high concentrations of pollution in atmosphere. Topics include nature and sources of gaseous and particulate pollutants, their transport, dispersion, modification, and removal, with emphasis on atmospheric processes on scales ranging from individual sources to global effects; interaction with biosphere and oceans; stratospheric pollution. P/NP or letter grading.

3. Air Pollution Laboratory. (1) Laboratory, one hour. Enforced corequisite: course 1. Lab sections and demonstrations supporting material in course 2, including box model simulation, dose responses, air parcel motion and pollution dispersion, daily and seasonal variation of pollutants, and smog transport. P/NP or letter grading.

3. Meteorology and Extreme Weather. (4) Lecture, three hours; discussion, one hour. Nature and causes of weather phenomena, including atmospheric global circulation, clouds and storms, lightning and precipitation, fronts and cyclones, and tornadoes and hurricanes. P/NP or letter grading.

3. Meteorology and Extreme Weather Laboratory. (1) Laboratory, one hour. Enforced corequisite: course 3. Investigations and data analysis supporting material in course 3, including interpretation of meteorological data, use of modern visualization tools to understand weather, and critical analysis of historical hurricane data. P/NP or letter grading.

5. Climates of Other Worlds. (4) Lecture, three hours; discussion, one hour. Introduction to atmospheres of planets and their satellites in solar system using information obtained from planetary exploration program. Elementary description of origin and evolution of atmospheres on planets. Climates on planets, conditions necessary for evolution of life, and its resulting effect on planetary environment. P/NP or letter grading.


15. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

51. Fundamentals of Climate Science. (4) Lecture, three hours; discussion, one hour. Requisites: Mathematics 3B or 32A, Physics 1B or 5B or 6B, with grades of C or better. Development of fundamental understanding of climate science. Topics include global energy balance, atmospheric and oceanic circulation, global hydrologic cycle, modes of climate sensitivity, climate modeling, and climate change. P/NP or letter grading.

M71. Introduction to Computing for Geoscientists. (4) (Same as Earth, Planetary, and Space Sciences M71.) Lecture, three hours; laboratory, 90 minutes; outside computing study, six to 10 hours. Introduction to writing programs, visualization of geoscientific data, and comparison with models. P/NP or letter grading.

88. Lower-Division Seminar. (4) Seminar, three hours. Variable topics; consult Schedule of Classes or department for topics to be offered in specific term. P/NP or letter grading.

88. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designated as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors consent noted on transcript. P/NP or letter grading.

99HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors consent noted on transcript. Letter grading.

90. Introduction to Undergraduate Research in Atmospheric and Oceanic Sciences. (4) Lecture, two hours; laboratory, two hours. Requisites: course M71 (or Program in Computing 10A); Life Sciences 30A and 30B or Chemistry 14A or 31A and 31B. Students gain basic ability to understand, conduct, and communicate scientific research in atmospheric and oceanic sciences. Univariate and bivariate statistical data analysis, scientific computer programming, basics of scientific process, finding and reading scientific literature, basic experimental techniques, Earth system data analysis and interpretation, communication of scientific findings in oral and written form. Skills taught in context of projects from atmospheric and oceanic sciences. P/NP or letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other activities) three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

101. Fundamentals of Atmospheric Dynamics and Thermodynamics. (8) Lecture, four hours; discussion, one hour. Requisites: Mathematics 3B or 31B or Life Sciences 30B, Physics 1B or 5B or 6B or 8B. Introduction to thermodynamics (flows of heat, energy, and work), and dynamics (motion). Topics covered include hydrostatic balance, first law of thermodynamics, dry and moist adiabatic processes, atmospheric stability, and fundamental equations of motion of atmosphere, with applications to geostrophic, gradient, and thermal winds. Letter grading.

102. Climate Change and Climate Modeling. (4) Lecture, three hours; discussion, one hour. Enforced requisites: Mathematics 3C or 32A, Physics 1B or 6C, with grades of C or better. Development of fundamental environmental issues in climate change due to human activities or natural climate variations. Quantitative introduction to new science of climate modeling to understand and predict these changes. Physical processes in climate system. Atmospheric and oceanic circulation. El niño and year-to-year climate prediction. Greenhouse effect and global warming. P/NP or letter grading.


104. Fundamentals of Air and Water Pollution. (4) Lecture, three hours; discussion, one hour. Requisite: Chemistry 14B or 20B. Chemistry and physics of air and water pollution, including photochemistry, acid rain, air pollution meteorology and dispersion, ground water and surface water pollution, chemical cycling, air/water interface, global atmospheric change. Letter grading.

M105. Introduction to Chemical Oceanography. (4) (Same as Ecology and Evolutionary Biology M139.) Lecture, three hours; discussion, one hour. Introduc- tory course for physical sciences, life sciences, and engineering majors interested in oceanic environment. Chemical composition of oceans and nature of physical, chemical, and biological processes governing this composition in past and present. Cycles of major and
minor oceanic constituents, with focus on those that are most important for life (i.e., carbon, nitrogen, phosphorus, silicon, and oxygen). Investigation of primary production, export production, remineralization, diageneric and oxygenic photosynthesis, air-sea gas exchange processes. Letter grading.

M106. Applied Climatology: Principles of Climate Impact on Natural Environment. (4) [Same as Geology M104.] Lecture, discussion, one hour. Designed for juniors/seniors. Exploration of knowledge and tools to solve complex problems in contemporary applied climatology, including current practices, future directions, and human influence on changing climates. P/NP or letter grading.

107. Biological Oceanography. (4) Lecture, three hours; discussion, one hour. Introductory course for physical sciences, life sciences, and engineering majors interested in oceanic environment. Review of how biological processes are intrinsically tied to physical and chemical processes in oceans. Examination of processes that control distribution, abundance, and production of marine organisms and their spatial and temporal variability. Letter grading.


C110L. Advanced Dynamic and Synoptic Meteorology Laboratory. (2) Laboratory, two hours. Comprehensive weather forecasting exercises and map discussions by concurrent students. Concurrently scheduled with course C227L. P/NP or letter grading.

C111. Introduction to Machine Learning for Physical Sciences. (4) Lecture, 90 minutes; laboratory, 90 minutes. Designed for physical sciences students. Practical, hands-on training in machine learning through use of Python and libraries such as ScikitLearn, TensorFlow, and Keras. Students gain practical skills to work in industry or re- search immediately, using popular Python programming language to analyze large datasets, and solving machine learning problems. Letter grading.

120. Climate Change Assessment. (4) Lecture, three hours; discussion, one hour. Requisite: course from 308, 309, 380, 388. Students learn to analyze and interpret observed and predicted changes in the Earth system. Topics include anthropogenic climate change and natural variability, Earth system dynamics, impacts of climate change on human society and the environment, and mitigation and adaptation options. Lecture, discussion, one hour. P/NP or letter grading.

121. Climate Mitigation Solutions. (4) Lecture, three hours; discussion, one hour. Requisite: course from 1, 2, 3, 51, M100, 102, or 112. Critical survey of potential strategies to address climate change, including solutions in infrastructure, transportation, agriculture, energy systems, and urban planning. Letter grading.

122. Climate Adaptation Solutions. (4) Lecture, three hours; discussion, one hour. Requisite: course from 1, 2, 3, 51, M100, 102, or 112. Critical survey of potential strategies to address climate change, including solutions in infrastructure, transportation, agriculture, energy systems, and urban planning. Letter grading.

123. Climate Change Impact Modeling. (4) Lecture, three hours. Requisite: courses 1, 2, 3, 91, 92, 93, 104, 105, 106, 107, 120, 175, or equivalent background. Students learn to use climate models to assess the potential impacts of climate change on human and natural systems. Letter grading.

130. California’s Ocean. (4) Lecture, four hours. Requisite: course 103 or 105. Introduction to California’s marine ecosystems, emphasizing intersections with other deep sustainability challenges. Letter grading.


141. Introduction to Atmospheric Chemistry and Air Pollution. (4) Lecture, three hours; discussion, one hour. Requisite: courses 103, 105, 106, 107. Study of fundamental principles of atmospheric chemistry and biogeochemical cycles occurring in aquatic systems and how these processes interact with environment. Topics include photoreactive (oxygenic and oxygenic photosynthesis), chemoheterotrophic (fermentation of organic matter degradation with light), and chemoheterotrophic (iron, nitrogen, manganese, methane, and sulfur oxidation) pathways. Introduction of principal of bioenergetics (adenosine triphosphate production, Gibbs free energy, chemiosmosis, thermodynamic calculations) and biological isotope fractionation. Concurrently scheduled with course CM137A. P/NP or letter grading.

CM114A. Aquatic Geomicrobiology: Metabolisms. (4) Formerly numbered CM114A. [Same as Earth, Planetary, and Space Sciences C114A.] Lecture, three hours. Recommended requisite: course M105 or Earth, Planetary, and Space Sciences C107. Study of fundamental geomicrobiological metabolisms and biogeochemical reactions occurring in aquatic systems and how these processes interact with environment. Metabolisms include phototrophic (anoxic and oxygenic photosynthesis), chemoheterotrophic (fermentation of organic matter degradation with light), and chemoheterotrophic (iron, nitrogen, manganese, methane, and sulfur oxidation) pathways. Introduction of principal of bioenergetics (adenosine triphosphate production, Gibbs free energy, chemiosmosis, thermodynamic calculations) and biological isotope fractionation. Concurrently scheduled with course CM137A. P/NP or letter grading.


C144. Atmospheric Boundary Layer. (4) Lecture, three hours. Enforced requisite: course 101 with grade of B+ or better. Atmospheric boundary layer is lowest portion of atmosphere, representing interface between Earth’s surface and atmosphere. Origin and properties of atmospheric boundary layer, with focus on processes that determine them. Concurrently scheduled with course C222. P/NP or letter grading.

145. Atmospheric Physics: Radiation, Clouds, and Aerosols. (4) Lecture, three hours. Requisite: Physics 1A, 1B, and 1C, or 6A, 6B, and 6C. Theory and application of atmospheric radiation, aerosol, and cloud processes. Topics include cloud microphysics, cloud formation and rain formation, aerosol properties, impact of aerosol and clouds on climate. Letter grading.

150. Atmospheric and Oceanic Sciences Laboratory. (5) Lecture, one hour; laboratory, six hours. Requisite: Mathematics 3B or 31B, Physics 1B and 1C (or 5B and 5C). Many of today’s environmental problems, such as stratospheric ozone hole, current rise of greenhouse gas concentrations, and various severe weather phenomena, were either unforeseen or not properly investi- gated using accurate observational techniques. Direct experimental observations remain crucial compo- nent in today’s efforts to better understand weather, climate, and pollution of atmosphere and oceans. Intro- duction to experimental/observational approach in at- mospheric and oceanic sciences. Students work in small groups to gain hands-on experience in setup, performance, analysis, and reporting of different ex- periments. Introduction to underlying principles of these experimental methods and basic data analysis tools. P/NP or letter grading.

151. Introduction to Ecosystem-Atmosphere Interactions. (4) Lecture, three hours; discussion, one hour. Exchanges of energy, moisture, atmospheric trace gases, and momentum between terrestrial eco- systems and atmosphere. Feedbacks between physical environment and physiological status of plants and soils. Topics include canopy structure and function, leaf energy balance, and carbon and water fluxes between plants, soils, and at- mosphere. Letter grading.

160. Remote Sensing of Atmosphere and Oceans. (4) Lecture, three hours. Requisite: Physics 1C or 5B. Theory and techniques of remote sensing: atmo- spheric spectroscopy, sensorization; passive and active techniques; relevant satellite sys- tems; inversion methods; remote sensing of clouds, aerosols, temperature, precipitation, and trace constit- uents; remote sensing of oceans. Concurrently scheduled with course C205A. Letter grading.


C171. Advanced Complex Geosciences. (4) [Same as Earth, Planetary, and Space Sciences M171.] Lecture, four hours. Enforced requisite: course M71. Mathematics 3A, 3B, and 3C (or 31A and 31B). Use of high level computing language to pro- gram microcontrollers to acquire laboratory-style ex- perimental data. Misfit modeling and quantitative comparisons of acquired data sets and theory. For- mulation and implementation of algorithms. Examples, experiments, and exercises from disciplines within geosciences. P/NP or letter grading.

180. Numerical Methods in Atmospheric Sciences. (4) Lecture, three hours; discussion, one hour. Preparation: course in programming (C++, Fortran, MATLAB, or Python). Requisite: Mathematics 33B. In- troduction to numerical methods employed in atmo- spheric and oceanic sciences: theory, application,
programming, and visualization tools. Students build their own numerical model of atmospheric/oceanic circulation. Term project. Letter grading.


C182. Data Analysis in Atmospheric and Oceanic Sciences. (4) Seminar, three hours; laboratory, one hour. Enforced requisite: course from 101 through M105. Recommended: one probability course. Overview of data analytic methods in common use in atmospheric and oceanic sciences majors. Daily contact with weather data, and interpretation of numerical weather prediction models outputs. Letter grading.

186. Operational Meteorology. (2) Lecture, 90 minutes; laboratory, 90 minutes. Emphasis on practical applications, with specific examples from atmospheric and oceanic sciences. Concurrently scheduled with course C260. P/NP or letter grading.

188. Special Topics in Atmospheric and Oceanic Sciences. (4) Lecture, three hours; discussion, one hour. Departmentally-sponsored experimental or temporary course. May be repeated for credit with topic change. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed and taught by instructor. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed and taught by student and instructor. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for credit. Individual honors contract required. Honors content noted on transcript. Letter grading.

190. Research Colloquia in Atmospheric and Oceanic Sciences. (2) Seminar, two hours. Preparation: basic knowledge of climate (equivalent to course 3) and lower-division calculus, chemistry, and physics; course 101 strongly recommended. Limited to departmental majors and minors. Survey of current research projects presented by faculty members and research staff in seminar and/or panel discussion format. May be repeated for credit. P/NP grading.


200A. Introduction to Atmospheric and Oceanic Sciences. (2 to 4) Tutorial, to be arranged. Enforced requisite for seniors and juniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

200B. Introduction to Atmospheric Physics. (4) Lecture, three hours; discussion, one hour. Principles of atmospheric and oceanic approximations. Rotating reference frame. Density stratification. Geostrophic adjustment. Buoyancy and oceanic approximations. Radiative transfer equation: direct and scattering of solar and infrared radiation; radiation budget consideration; aerosols in atmosphere; principles of water droplet and ice crystal formation; diffusion and accretion; air–sea interaction; global ocean circulation; El Niño–Southern Oscillation and other climate variability modes; paleoclimate; climate sensitivity; climate variability and change; Earth’s carbon cycle (atmosphere, ocean, land), and space physics. S/U or letter grading.

200C. Introduction to Atmospheric and Oceanic Radiation, Physics, and Chemistry. (4) Lecture, three hours; discussion, one hour. Principles of radiation transfer; absorption and scattering of solar and infrared radiation; radiation budget consideration; aerosols in atmosphere; principles of water droplet and ice crystal formation; diffusion and accretion; air–sea interaction; global ocean circulation; El Niño–Southern Oscillation and other climate variability modes; paleoclimate; climate sensitivity; climate variability and change; Earth’s carbon cycle (atmosphere, ocean, land), and space physics. S/U or letter grading.

200D. Scientific Communication for Atmospheric and Oceanic Scientists. (4) Lecture, three hours; discussion, one hour. Basics of scientific communication. How to effectively communicate research and scientific ideas in writing and speaking. How to effectively communicate research and scientific ideas in writing and speaking. How to effectively communicate research and scientific ideas in writing and speaking. How to effectively communicate research and scientific ideas in writing and speaking. How to effectively communicate research and scientific ideas in writing and speaking.


C201B. Geophysical Fluid Dynamics II. (4) Lecture, three hours. Enforced requisite: course 201A. Atmospheric and oceanic approximations. Influence of topography, Coriolis force, and boundary-layer turbulence and its geophysical modification due to stratification, Earth’s rotation, and wave phase changes. S/U or letter grading.


M203A. Introduction to Atmospheric Chemistry. (4) (Same as Civil Engineering M262A.) Lecture, three hours. Required for undergraduates: Chemistry 20B. Principles of chemical kinetics, thermochromy, spectroscopy, and photochemistry; chemical composition and history of Earth’s atmosphere; biogeochemical cycles of key atmospheric constituents; basic photochemistry of troposphere and stratosphere, upper atmosphere chemical processes; air pollution; chemistry and climate. S/U or letter grading.

203B. Introduction to Atmospheric Physics. (4) Lecture, three hours. Discussion, one hour. Principles of radiation transfer; absorption and scattering of solar and infrared radiation; radiation budget consideration; aerosols in atmosphere; principles of water droplet and ice crystal formation; diffusion and accretion; air–sea interaction; global ocean circulation; El Niño–Southern Oscillation and other climate variability modes; paleoclimate; climate sensitivity; climate variability and change; Earth’s carbon cycle (atmosphere, ocean, land), and space physics. S/U or letter grading.

C204. Introduction to Machine Learning for Physical Sciences. (4) Lecture, 90 minutes; laboratory, 90 minutes. Designed for physical sciences students. Practical, hands-on introduction to seven of most popular algorithms of machine learning (ML). Students gain most practical skills to start working in industry or research immediately, using popular Python programming language, together with SciKitLearn ML library, and covering essential theory to understand what algorithms do. Focus on problems that arise in physical sciences. Covers algorithms in broad areas of ML, including supervised learning (regression and classification) and unsupervised learning (clustering and dimensionality reduction). Lectures and programming exercises. Concurrently scheduled with course C111. S/U or letter grading.

C205A. Introduction to Solar System Plasmas. (4) Lecture, three hours; discussion, one hour. Introduction to plasma physics and particles moving in solar, sun, solar wind, magnetospheres, and ionspheres of planets, using simple fluid (magnetohydrodynam) models as well as individual particle (particle radiation belt dynamics) approach. Solar-planetary, coupling processes, geomagnetic phenomena, aurora. Concurrently scheduled with course C170. S/U for majors with consent of instructor after successful completion
of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

205B. Introduction to Solar-Terrestrial Physics. (4) Lecture, three hours, one period. Emphasis on planetary, magnetospheric, ionospheric, auroral, geo-magnetic phenomenological and theoretical background for studies in space physics. Contextual understanding of space physics fundamentals provided. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

205C. Planetary Upper Atmospheres. (4) Lecture, three hours; discussion, one hour. Aeronomy of upper atmospheres of Earth and other planets and some of their satellites—thermospheric structure and morphology, circulations, and disturbances; ionospheres as well as collisional and magnetized (unmagnetized) plasmas: currents, drifts, and instabilities. Examples of upper atmospheric interaction with lower atmosphere and vice versa. S/U or letter grading.

M206. Introduction to Biophysical Modeling of Land Surface Processes and Land/Ocean Interaction. (4) (Same as Geology 206L.) Lecture, two hours; laboratory, one hour; reading, one hour, one period. Designed for graduate students. Presentation of introductory knowledge for graduate students to understand the past, present, and future of biophysical modeling of land surface processes, including the study of canopy models, water and CO2 fluxes, transfer, and satellite data application. Laboratory sessions included. S/U or letter grading.

209. Climate Change Assessment. (4) Lecture, three hours; discussion, one hour. Corequisites: graduate atmospheric sciences, oceanography, or climate science. Laboratory. Lectures, readings, and projects on current issues in projections of future anthropogenic climate change; design and use of resources from Coupled Model Intercomparison Projects (CMIPs), topics from large multinational climate assessment including Intergovernmental Panel on Climate Change (IPCC), issues in modeling current climate, including natural climate variability, and global warming, and understanding of under standardized scenarios for future anthropogenic greenhouse gases and aerosols. May be repeated for credit. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

Dynamic and Synoptic Meteorology

M210. Planetary Atmospheres and Climates. (4) (Same as Earth, Planetary, and Space Sciences 229.) Lecture, three hours. Enforced requisite: Physics 1C. Planetary atmospheric structure and composition, radiative transfer, and climate dynamics. Topics include origin and evolution of atmospheres, paleoclimate of Earth and Mars, atmospheric thermodynamics, plane-parallel radiative transfer, climate dynamics, ocean dynamics, and climate modeling. Topics include radiation, clouds, and climate variability and climate change. S/U or letter grading.

211. Planetary Wave Dynamics and Teleconnections in Atmosphere/Ocean. (4) Lecture, three hours. Required: course 210B. Dynamics of stationary and low-frequency waves in Earth’s atmosphere and ocean with applications to remote impacts of climate variability. Propagation of barotropic and baroclinic Rossby waves in spatially varying flow. Interactions with storm systems, boundary layer, and convective systems. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

212A. Numerical Methods in Geophysical Fluid Dynamics. (4) Lecture, three hours. Required or corequisite: course 210A. Basic numerical methods for initial-boundary value problems. Emphasis on applications to atmospheric and oceanographic problems. Finite-difference methods and truncation error. Linear and nonlinear computational instabilities. Computational modes and computational boundary conditions. Nonlinear shallow-water equation models. Spectral models for major with consent of instructor after successful completion of written and oral comprehensive examination for nonmajors at discretion of major department) or letter grading.

212B. Numerical Modeling of Atmosphere I. (4) Lecture, three hours. Requisites: courses 201B, 212A. Dynamical and numerical weather prediction and climate models and their computational design. Conceptual framework for major with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

212C. Numerical Modeling of Atmosphere II. (4) Lecture, three hours. Requisite: course 201C. For major with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

M217. Regional Climate Dynamics. (4) Lecture, three hours; discussion, one hour. Global distribution of climate regimes with spatial scales smaller than 100 km. Mechanisms maintaining regional climate variation against larger-scale atmospheric and climate gradients. Regional climate/ecosystem/human system interactions. S/U or letter grading.

218. Dynamics of Atmosphere/Ocean System. (4) Lecture, three hours. Transfer of properties between atmosphere and ocean; wind-driven ocean currents; coastal upwelling, Air/sea interactions. Effects of oceans on climate. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.


M222. Atmospheric Boundary Layer. (4) Lecture, three hours. Atmo-spheric boundary layer is a lowest portion of atmosphere, representing interface between Earth’s surface and atmosphere, is strongly affected by turbulence, and plays important role in exchange of heat, moisture, trace gases, and aerosols between Earth’s surface and free troposphere. Investigation of properties of atmospheric boundary layer and processes that determine them. Concurrency scheduled with course C144. S/U or letter grading.

M224. Atmospheric Turbulence. (4) Lecture, three hours. Kinematics of homogeneous and shear flow turbulence. Surface and planetary boundary layers, including heat transfer and turbulent convection. Survey of turbulence and laboratory observations and their interpretation by theory. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

225. Advanced Topics in Aerosol Chemistry and Physics. (4) Lecture, three hours. Requisites: courses M203A, M203B (may be taken concurrently). Study of advanced aerosol processes, including emission processes, optical properties, secondary organic aerosol formation and heterogeneous chemistry, and methods for aerosol measurements. Each student performs research project in detail at one aspect covered. May be repeated for credit. S/U or letter grading.

M227. Advanced Dynamic and Synoptic Meteorology. (4) Lecture, three and one half hours. Weather map analysis, synoptic and hemispheric-scale meteorology, frontogenesis, quasi-geostrophic omega equation. Concurrently scheduled with course C110. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

M227L. Advanced Dynamic and Synoptic Meteorology Laboratory. (2) Laboratory, three hours. Comprehensive weather forecasting exercises and map discussions led by meteorologist. Concurrently scheduled with course C110L. S/U or letter grading.

M228. Mesometeorology. (4) Lecture, two hours. Required: course 101. Observations of phenomena with length scales ranging from 20 km to 2,000 km.
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Atmospheric Physics and Chemistry

230A. Atmospheric Chemistry I. (4) Lecture, three hours. Requisite: course M203A. Photochemistry of troposphere; physical chemistry of surfaces and solutions; precipitation chemistry and acid rain; atmospheric geochemistry; detail global chemical cycles; current issues in global change. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

230B. Atmospheric Chemistry II. (4) Lecture, three hours. Requisite: course M203A. Photochemistry of stratosphere and mesosphere; basic ionospheric processes; detail global chemical cycles; current issues in global change. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

232. Chemical Transport Modeling. (4) Lecture, three hours. Requisites: courses M203A, 230A, 230B. Equations of tracer transport and chemical kinetics modeling in three dimensions; numerical techniques; coupled simulations of gas-phase and aerosol microphysics and chemistry; computational versus observational results; current problems in tracer modeling. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

235. Ocean Biogeochemical Dynamics and Climate. (4) (Same as Ecology and Evolutionary Biology M235.) Lecture, three hours. Requisites: courses M237A, 230A, 230B. Equations of tracer transport and chemical kinetics modeling in three dimensions; numerical techniques; coupled simulations of gas-phase and aerosol microphysics and chemistry; computational versus observational results; current problems in tracer modeling. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

237. Climate of Earth, Planetary, and Space Sciences C107. Study of fundamental geochemical biogeochemical and biogeochemical reactions occurring in aquatic systems and how these processes interact with evaporation and condensation. Metabolisms include photosynthetic (oxygenic and oxygenic photosynthesis), chemoheterotrophic (fermentation and respiration of organic matter), and phototrophic (photophosphorylation, photolysis, energy conversion, and photorespiration) reactions and the biological and isotopic fractionation. Concurrently scheduled with course CM114A. S/U or letter grading.

CM237A. Aquatic Geomicrobiology: Environments. (4) (Same as Earth, Planetary, and Space Sciences CM214B.) Lecture, three hours. Recommended requisite: course CM237B. A broad overview of aquatic geomicrobiological processes in diverse environmental settings (e.g., sediments, freshwater, seawater, ice), with a focus on the role of microorganisms in controlling chemical cycles; current issues in global change. S/U or letter grading.


244B. Radiation and Climate. (4) Lecture, three hours. Requisite: course 203B. Recommended requisite: course 203A. Study of how aerosols can affect weather and climate by interacting with clouds through direct, indirect, and semi-direct mechanisms and with climate change assessments. Structured around reading and discussion of scientific publications. S/U or letter grading.

Upper Atmosphere and Space Physics

M250A. Solar System Magnetohydrodynamics. (4) (Same as Earth, Planetary, and Space Sciences M263A.) Lecture, three hours. Requisite: course CM238. Formation of Magnetic Fields and Magnetospheres and Solar Wind/Magnetosphere coupling. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

M250B. Solar System Microparticle Processes. (4) Lecture, three hours. Requisite: course C205A. Derivative charged particle dynamics; incoherent radiation processes; collective effects in plasma; propagation characteristics of electrostatic and electromagnetic waves; introduction to resonant interaction between charged particles and plasma waves. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

256. Ionospheric Electrodynamics. (4) Lecture, three hours. Ionospheric structure, currents, and electric fields; equatorial and high-latitude ionospheres; ionospheric control of magnetospheric phenomena. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

257. Radiation Belt Plasma Physics. (4) Lecture, three hours. Waves, instabilities and their relation to satellite observations and magnetospheric processes. Processes responsible for source, loss, and transport of energetic radiation belt particles. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.


C260. Data Analysis in Atmospheric and Oceanic Sciences. (4) Lecture, three hours; laboratory, one hour. Enforced requisite: one course from 101 through M105. Overview of data analytic methods in common use in atmospheric and oceanic research. Linear models, principal component analysis (empirical orthogonal function), time-series analysis, and clustering.

Topics include polar lows, airmass thunderstorms, multicell storms, supercell tornadoes, gust fronts, downbursts, microbursts, and dry line. Discussions on design of field project. Concurrently scheduled with course C115. S/U for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.
Special Studies

270. Seminar: Atmospheric Sciences. (2) Seminar, one hour. May be repeated for credit. S/U or letter grading.

271. Seminar: Atmospheric Dynamics. (2) Seminar, one hour. May be repeated for credit. S/U or letter grading.


274. Seminar: Atmospheric Composition. (2) Seminar, one hour. May be repeated for credit. S/U or letter grading.


275. Seminar: Mesoscale Processes. (2) Seminar, one hour. Selected topics of current research interest in connection with extratropical cyclones, and fronts. May be repeated for credit. S/U or letter grading.

277. Seminar: Coastal Ocean. (2) Seminar, one hour. Selected topics of current interdisciplinary research in marine and coastal sciences, including physical oceanography, biogeochemistry, marine biology, coastal engineering, atmospheric processes, and health-related issues. May be repeated for credit. S/U or letter grading.

281. Special Topics in Dynamic Meteorology. (2 to 4) Lecture, two hours. Individual meetings with instructor to be arranged. May be repeated for credit. S/U or letter grading.

282. Special Topics in Oceanography. (2 to 4) Lecture, two hours. Individual meetings with instructor to be arranged. May be repeated for credit. S/U or letter grading.

283. Special Topics in Atmospheric Physics. (2 to 4) Lecture, two hours. Individual meetings with instructor to be arranged. May be repeated for credit. S/U or letter grading.

284. Special Topics in Atmospheric Chemistry. (2 to 4) Lecture, two hours. Individual meetings with instructor to be arranged. May be repeated for credit. S/U or letter grading.

285. Special Topics in Solar Planetary Relations. (2 to 4) Lecture, two hours. Individual meetings with instructor to be arranged. Selected topics of current research interest in solar wind, magnetospheric, or ionospheric physics. S/U or letter grading.

286. Statistical Prediction and Verification. (3) Seminar, one hour; discussion, one hour. Statistical prediction and verification. Topics include multiple linear regression, logistic regression (probability prediction), objective prediction using traditional statistical methods, ensemble prediction. S/U grading.

287. Machine Learning Approaches for Determining Causality in Coupled Earth System Data. (3) Seminar, three hours; discussion, one hour. Determining causality in earth system data is challenging because of strong coupling between different variables. Study of state-of-art statistical approaches that are designed to infer causality between variables that are strongly coupled on different time scales—for example, ocean-atmospheric coupling and land-vegetation-atmospheric coupling, and for nonlinear coupling. Methods include but not limited to Granger causality, generalized equilibrium feedback assessment, step-wise generalized equilibrium feedback assessment, empirical dynamic modeling, and area weighted connectivity. Offers stimulating group learning experience through reading papers and discussion, and if possible, application of some methods to earth system data. S/U grading.


597A-597L. Advanced Topics in Atmospheric Sciences. (2 each) Discussion, two hours. Advanced study and analysis of current topics in atmospheric sciences. Discussion of current research and literature in research specialty of faculty member teaching course. May be repeated for credit. S/U grading.

296A-296L. Advanced Topics in Atmospheric Sciences. (2 each) Discussion, two hours. Advanced study and analysis of current topics in atmospheric sciences. Discussion of current research and literature in research specialty of faculty member teaching course. May be repeated for credit. S/U grading.

296N. Experimental Mesoscale Meteorology. 296K. Tropical Meteorology. 296L. Geophysical Fluid Dynamics, Oceanography, and Climate. 296M. Radiation and Remote Sensing. 296N. Tropospheric Chemistry and Climate Modeling and Analysis. 296P. Atmospheric Chemistry of Air Pollution, Aerosols, and Climate. 296O. Regional to Local Modeling of Atmospheric Composition and Climate Interactions. (2) Research group meeting, two hours. Presentation and discussion of research on modeling of air quality and atmospheric composition from local to regional scales. Some topics include research in air quality forecasting to improve predictive capability of pollution episodes (e.g., haze conditions, forest fires, dust outbreaks); data assimilation and inverse modeling, i.e., using atmospheric observations (e.g., satellite, ground based, airborne) to improve air quality forecasts or better constrain emission sources; and investigation on modeling of aerosols (particles in atmosphere) and their interactions with clouds and radiation, which are in part responsible for uncertainties in climate change projections. Presentations by participants and invited speakers from other research groups, S/U grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

495. Teaching Atmospheric and Oceanic Sciences. (2) Seminar, one hour; two-day intensive training session prior to Fall Quarter. Required of all new teaching assistants and recommended for new PhD students and graduate students intending to be teaching assistants during academic year. Introduction to classroom teaching for general education and upper-division departmental courses. Topics include pedagogical techniques, preparation, academic integrity, and integration of technology and electronic communications. S/U grading.


Learning Outcomes

The Bioengineering major has the following learning outcomes:

- Application of advanced knowledge of mathematics, science, and engineering principles to address problems at the interface of biology and engineering
- Design of a system, component, or process to meet desired needs
- Function as a productive member of a multidisciplinary team
- Effective oral and written communication
- Identification, formulation, and solution of engineering problems

Requirements

Preparation for the Major

Required: Bioengineering 10; Chemistry and Biochemistry 20A, 20B, 20L, 30A, 30AL, 30B; Civil and Environmental Engineering M20 or Computer Science 31 or Mechanical and Aerospace Engineering M21; Life Sciences 7A (satisfies school GE life sciences requirement) and 7C; Mathematics 31A, 31B, 32A, 32B, 33A, 33B; Physics 1A, 1B, 1C, 4AL.

The Major

Students must complete the following courses:

1. Bioengineering 100, 110, 120, 167L, 175, 176, 180, Electrical and Computer Engineering 100; three technical breadth courses (12 units) selected from an approved list available in the Office of Academic and Student Affairs; two capstone design courses (Bioengineering 177A, 177B).

2. Six additional major field elective courses (24 units) from Bioengineering C101, C102, C104, C105, C106, C107, 121, 122, C131, 132, C135, C139A, C139B, CM140, CM145, C147, M153, C155, 170, CM178, C179, 180L, M182, C183, C185, CM186, CM187, 199 (6 units maximum)

Three of the major field elective courses and the three technical breadth courses may also be selected from one of the following tracks. Bioengineering majors cannot take bioengineering technical breadth courses to fulfill the technical breadth requirement.

Biomaterials and Regenerative Medicine: Bioengineering C104, C105, CM140, C147, C183, C185, 199 (8 units maximum), Materials Science and Engineering 104, 110, C111, 120, 130, 132, 143A, 150, 151, 160, 161. The above materials science and engineering courses may be used to satisfy the technical breadth requirement.

Biomedical Devices: Bioengineering C131, M153, 199 (8 units maximum), Electrical and Computer Engineering 102, Mechanical and Aerospace Engineering C187L. The electrical and computer engineering or mechanical and aerospace engineering courses listed above may be used to satisfy the technical breadth requirement.

For Bioengineering 199 to fulfill a track requirement, the research project must fit within the scope of the track field, and the research report must be approved by the supervisor and vice chair.

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For information on UC, school, and general education requirements, see the Samueli school section in College and Schools.

Graduate Major

Bioengineering MS, PhD

The graduate program in bioengineering trains future leaders in the wide range of possible bioengineering careers at the interface of engineering, life sciences, and medical practice. Graduates from the program are trained to be well-grounded in the fundamental sciences, adept at addressing open-ended problems, and highly proficient in rigorous analytical engineering tools necessary for lifelong success.

Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Bioengineering

Lower-Division Courses

10. Introduction to Bioengineering. (2) Lecture, two hours; discussion, one hour; outside study, three hours. Preparation: high school biology, chemistry, mathematics, physics. Introduction to scientific and technological bases for established and emerging subfields of bioengineering, including biosensors, bioinstrumentation, and biosignal processing, biomechanics, biomaterials, tissue engineering, biotechnology, biological imaging, biomedical optics and lasers, neuroengineering, and biomolecular machines. Letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

99. Student Research Project. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

100. Bioengineering Fundamentals. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: Mathematics 32A, Physics 1A. Fundamental basis for analysis and design of biological and biomedical devices and systems. Classical and statistical thermodynamic analysis of biological systems. Material, energy, charge, and force balances. Introduction to network analysis. Letter grading.

biochemical reactions in systems of interest to bioengineers, including cells, tissues, organs, human body, extracorporeal devices, tissue engineering systems, and biomolecules. Introduction to pharmacokinet- netic analysis. Letter grading.


121. Introduction to Microcontrollers. (4) Lecture, one hour; discussion, one hour; outside study, three hours. Requisites: Civil and Environmental Engineering M20 or Mechanical and Aerospace Engineering M20 or Computer Science 31, and Electrical and Computer Engineering 100, or equivalent. Project component. Em- phasis on introduction to basic and advanced concepts in- volved in development of projects using microcontroller- s for projects in robotics and motion, light and sound, sensing and analysis, and signal amplification and filtering, communication with specialty inte- grated circuits, and computer interface using Java- based processing language. Uses of Arduino platform to explore digital and analog input, output, SPI and I2C, interrupts, timing, use and writing of software li- braries, and other advanced topics. Students con- struct and analyze first-order passive filters, opera- tional amplifier (op-amp) circuits, and related material to equip them to make creative software and hardware projects, as well as develop their own instrumentation for subsequent laboratory or design work. Project- based homework has an emphasis on the design, fabrication, and testing of projects. In- cludes final design project. Letter grading.

122. Introduction to Medical Imaging. (4) Lecture, four hours; discussion, four hours; outside study, four hours. Requisites: Mathematics 33A, Physics 1A, 1B, 1C. Analysis of sensors based on measurements of fluctuatingionic conductance through artificial or protein nanopores and conductance. Ap- plications to single molecule detection and DNA se- quencing. Review of current literature and technolog- ical applications. History and instrumentation of resis- tive pulse sensing, application of electrical measurements in electrolytes, nanopore fabri- cation, ionic conductance through pores and GHH equation, patch clamp and single channel measure- ments and instrumentation, toxin issues, protein engi- neering, molecular sensing, DNA sequencing, mem- bran engineering, and future directions of field. Con- currently scheduled with course C231. Letter grading.

131. Nanopore Sensing. (4) Lecture, four hours; dis- cussion, one hour; outside study, seven hours. Requi- sites: courses 100, 120, Life Sciences 7A, Physics 1A, 1B, 1C, consent of instructor. Introduction of principles and survey of technology and applications in field of bio- medical imaging. Letter grading.

C102. Human Physiological Systems for Bioengi- neering I. (4) Lecture, three hours; laboratory, two hours. Preparation: human molecular biology, bio- chemistry, and cell biology. Not open for credit to Physics and Scientific majors. Broad overview of basic biological activities and organization of human body in system (organ/tissue) to system basis, with particular emphasis on molecular basis. Modeling/simulation of functional system includes demonstration of biomedical instruments, as well as visits to biomedical facilities. Concurrently scheduled with courses C202.

C104. Physical Chemistry of Biomacromolecules. (4) Lecture, three hours; discussion, two hours; out- side study, seven hours. Requisites: Chemistry 20A, 20B, 30A, Life Sciences 7A. To understand biological materials such as proteins and nucleic acids, it is impor- tant to understand their physical chemistry. Bio- macromolecules such as protein or DNA can be ana- lyzed and characterized by applying fundamentals of polymer physics. Structure and conformation, bulk and solution thermodynamics and phase behavior, polymer networks, and viscoelasticity. Application of engineering principles to problems involving biomacromolecules such as pro- tein conformation, solvation of charged species, and separation and characterization of biomacromole- cules. Concurrently scheduled with course C204. Letter grading.

C105. Engineering of Bioconjugates. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: Chemistry 20A, 20B, 20L. Highly recommended: one organic chemistry course. Bioconjugate chemistry: scope of coupling of biomacro- cules for wide range of applications. Oligonucle- otides may be coupled to one surface in gene chip, or one protein may be coupled to one polymer to en- hance its stability in serum. Wide variety of bioconju- gates are used in delivery of pharmaceuticals, in sen- sors, in medical diagnostics, and in tissue engineering. Basic concepts of chemical ligation, including choice and design of coupling scheme and illustration of non- specific and desired, and, in the case of biomolecule and desired application, such as degrad- able versus nondegradable linkers. Presentation and discussion of design and synthesis of synthetic bio- conjugates for some sample applications. Concur- rently scheduled with course C205. Letter grading.

C106. Topics in Bioelectricity for Bioengineers. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Requisites: Chemistry 20A, 20B, 20L. Fundamental principles of polymer synthesis, including step- growth, chain growth (ionic, radical, metal catalyzed), and ring-opening, with focus on factors that can be used to control chain growth, chain length, chain-end functionality, and stereochemistry in polymers. Presentation of applications of use of different polymerization tech- niques. Conjugation, chain-growth, ring-opening, and coordination polymerization, and effects of synthesis route on polymer properties. Lectures in- clude both theory and practical issues demonstrated through polymer projects. Concurrently scheduled with course C207. Letter grading.

C107. Polymer Chemistry for Bioengineers. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: Chemistry 20A, 20B, 20L. Funda- mental concepts of polymer synthesis, including step- growth, chain growth (ionic, radical, metal catalyzed), and ring-opening, with focus on factors that can be used to control chain growth, chain length, chain-end functionality, and stereochemistry in polymers. Presentation of applications of use of different polymerization tech- niques. Conjugation, chain-growth, ring-opening, and coordination polymerization, and effects of synthesis route on polymer properties. Lectures in- clude both theory and practical issues demonstrated through polymer projects. Concurrently scheduled with course C207. Letter grading.

C110. Biophysics and Bioreaction Processes. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: course 100, Mathematics 33B. Introduction to analysis of fluid flow, heat transfer, mass transfer, binding events, and introduction to free body diagrams and calculation of joint reaction forces; material versus structural proper- ties; introduction to stress analysis; mechanisms of fracture patterns and fracture fixation; biomechanics of total joint replacement; extracorporeal dam- ages and tribology; design and evaluation of total joint replacements; and introduction to spine biome- chanics, spine implants, and plate moment testing. Concurrently scheduled with course C235. Letter grading.

C139A. Biomolecular Materials Science I. (4) Lec- ture, four hours; discussion, one hour; outside study, seven hours. Course C139A is not to be taken concurrently with course C147. Overview of central topics of organic, inorganic, and biomolecular materials science that concern materials aspects of molecular biology, cell biology, and bioen- gineering. Understanding of different basic types of biomolecules, with emphasis on nucleic acids, pro- teins, and lipids. Study of how biological and biomi- metic systems organize into their functional forms via self-assembly and how these structures impart biolog- ical function. Case study on current topics, including drug delivery, gene therapy, cancer therapeutics, emerging patho- gens, and relation of self-assembly to disease states. May be taken independently for credit. Concurrently scheduled with course C239A. Letter grading.

C139B. Biomolecular Materials Science II. (4) Lect- ture, four hours; discussion, one hour; outside study, seven hours. Course C139B is not to be taken concurrently with course C147. Overview of central topics of organic, inorganic, and biomolecular materials science that concern materials aspects of molecular biology, cell biology, and bioen- gineering. Understanding of different basic types of biomolecules, with emphasis on nucleic acids, pro- teins, and lipids. Study of how biological and biomi- metic systems organize into their functional forms via self-assembly and how these structures impart biolog- ical function. Case study on current topics, including drug delivery, gene therapy, cancer therapeutics, emerging patho- gens, and relation of self-assembly to disease states. May be taken independently for credit. Concurrently scheduled with course C239B. Letter grading.

CM140. Introduction to Biomechanics. (4) Same as Mechanical and Aerospace Engineering CM140. Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: Mechanical and Aerospace En- gineering 101, 102, and 156A or 168A. Introduction to biomechanical foundations of design and adapta- tions to optimize load transfer, mobility, and function. Dynamics and kinematics. Fluid mechanics applica- tions. Heat and mass transfer. Power generation. Lab- oratory and computer simulations and tests. Concurrently scheduled with course CM124. Letter grading.

CM145. Molecular Biotechnology for Engineers. (4) (Same as Chemical Engineering CM145.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: Chemical Engineering 45 or Life Sci- ences 7C. Selected topics in molecular biology that form foundation of biotechnology and biomedical in- dustry today. Topics include recombinant DNA tech- niques, eukaryotic and prokaryotic forms of gene expression, directed mutagenesis and protein engi- neering, DNA-based diagnostics and DNA microar- rays, antibody and protein-based diagnostics, ge- nomics and bioinformatics, gene therapy, epigenetics, gene therapy, and tissue engineering. Concurrently scheduled with course CM124. Letter grading.

C147. Applied Tissue Engineering: Clinical and In- dustrial Perspective. (4) Lecture, three hours; discus- sion, one hour; outside study, six hours. Requi- sites: courses C102, Chemistry 20A, 20B, 20L, Life Sciences 7A. Overview of central topics of tissue engi- neering, with focus on how tissues are regulated into regulated clinical applicable products. Topics include biomaterials selection, cell source, delivery methods, FDA approval processes, and physical/chemical and biological testing. Case studies include skin and artifi- cial skin, bone and cartilage, blood vessels, neuro- tissue engineering, and liver, kidney, and other organs.

M153. Introduction to Microscale and Nanoscale Manufacturing. (Same as Chemical Engineering M153, Electrical and Computer Engineering M153, and Materials Science and Engineering M154) Lecture, three hours; laboratory, four hours; outside study, five hours. Enforced requisites: Chemistry 20A, Physics 1A, 1B, 1C, 4AL. Introduction to general manufacturing technologies and manufacturing processes such as microfabrication and nanofabrication. Focus on concepts, physics, and instruments of various microfabrication and nanofabrication techniques that have been broadly used in the sciences and academia, including various photolithography technologies, physical and chemical deposition methods, and physical and chemical etching methods. Hands-on experience for fabrication of micro- and nanodevices and nanomachines in modern clean-room environment. Letter grading.

C155. Fluid-Particle and Fluid-Structure Interactions in Microflows. (4) Lecture, four hours; laboratory, one hour; outside study, seven hours. Enforced requisites: Mathematics 22, 51A, 181A, 181B, and 182. Introduction to particle-induced flows and without finite inertia and implications for particle-particle interactions. Second-order flows induced by structures and contorted flows. Particle separations by fluid dynamic forces: field-flow fractionation, inertial focusing, structure-induced separations. Application concepts in internal biological flows and separations for biotechnology. Helps students become sufficiently fluent with fluid mechanics vocabulary and techniques and design and model microfluidic systems to manipulate fluids, cells, and particles, and develop computational fluid dynamics softwares. Students will have in arbitrary structured microchannels over range of Reynolds numbers. Concurrently scheduled with course C255. Letter grading.

165EW. Bioengineering Ethics. (4) Lecture, four hours; discussion, three hours; outside study, five hours. All professions have ethical rules that derive from moral theory, but Bioethics is well-established discipline that addresses ethical problems about life, such as when to stop life-support systems, end of life, or生活 ends. Should life ever be assisted? At what cost should it be maintained? Unlike physicians, bioengineers do not make ethical decisions. Engineering ethics addresses ethical problems about producing devices from molecules to bridges, such as when to concern about risk outweighing concerns about quality? When are weapons more than just a weapon? At what point does benefit of committing to building devices outweigh need to wait for more scientific confirmation of their effectiveness? Bioengineers must be aware of consequences of applying such devices to all living systems. Emphasis on research and writing within engineering environments. Satisfies engineering writing requirement. Letter grading.

C166. Wearable Bioelectronics. (4) Lecture, four hours; discussion, two hours; laboratory, six hours; outside study, six hours. Prerequisite: Introduction to medical device design and development, four hours. Wearable bioelectronics can be used to monitor human health and care. Focus on design and development of wearable devices that provide qualitative information for fitness enthusiasts to sophisticated systems that produce clinical-grade data for physicians. Introduction to cutting-edge research in wearable bioelectronics. Address fundamentals, materials, processes, and devices for wearable bioelectronics, showcasing key applications including device fabrication, manufacturing, and healthcare applications. Prerequisite: one course from C266. Letter grading.

167L. Bioengineering Laboratory. (4) Lecture, two hours; laboratory, six hours; outside study, four hours. Enforced requisites: Chemistry 20L. Laboratory experiments in fluorescence microscopy, bioconjugation, soft lithography, and cell culture culture in design of engineered surface for cell growth. Introduction to techniques used in laboratories and their underlying physical or chemical properties. Case studies connect innovative solutions to current biomedical engineering research and reinforce experimental design skills. Letter grading.


175. Machine Learning and Data-Driven Modeling in Bioengineering. (4) Formerly numbered C175L. Lecture, four hours; laboratory, two hours; outside study, six hours. Requisites: Computer Engineering M20 or Mechanical and Aerospace Engineering M20 or Computer Science 31, Mathematics 32B, 33A. Overview of foundational data analysis and machine-learning methods in bioengineering, focusing on how these techniques can be applied to interpret experimental observations, build predictive models, discover biomarkers, and make informed decisions about expression of cell-cell and cell-matrix interactions. Secondary flows induced by structures and contorted flows. Particle separations by fluid dynamic forces: field-flow fractionation, inertial focusing, structure-induced separations. Application concepts in internal biological flows and separations for biotechnology. Helps students become sufficiently fluent with fluid mechanics vocabulary and techniques and design and model microfluidic systems to manipulate fluids, cells, and particles, and develop computational fluid dynamics softwares. Students will have in arbitrary structured microchannels over range of Reynolds numbers. Concurrently scheduled with course C255. Letter grading.


177A. Bioengineering Capstone Design I. (4) Lecture, two hours; laboratory, six hours; outside study, four hours. Enforced requisites: courses 167L, 176. Covers techniques for the design and development of biomaterials for use in medicine. Topics include the basic principles of biomaterials and design, including the selection of materials for specific applications in medical devices. Letter grading.

177B. Bioengineering Capstone Design II. (4) Lecture, two hours; laboratory, six hours; outside study, four hours. Enforced requisites: course 177A. Lectures, seminars, and discussions on aspects of biomedical device and therapeutic design, including meetings with scientific/clinical advisers and guest lectures from scientists in industry. Senior project work, students design and develop innovative biosensor systems and devices. Enrollment limited to 20. Students will have in arbitrary structured microchannels over range of Reynolds numbers. Concurrently scheduled with course C283. Letter grading.

C179. Biomaterials-Tissue Interactions. (4) Lecture, three hours; outside study, nine hours. Requisites: course CM178. In-depth exploration of host cellular response to biomaterials: vascular response, interactions with clotting, biocompatibility, animal models, inflammation, infection, extracellular matrix, cell adhesion, and role of mechanical forces. Concurrently scheduled with course C279. Letter grading.


M180L. System Integration in Biology, Engineering, and Medicine I Laboratory. (4) Lecture, one hour; laboratory, four hours; clinical visits, four hours; outside study, three hours. Corequisite: course 180. Hands-on experimentation and clinical applications of selected medical therapeutic devices associated with cardiovascular and pulmonary disorders. Letter grading.

M182. Dynamic Biosystem Modeling and Simulation Methodology. (4) (Same as Computer Science M182.) Lecture, four hours; discussion, one hour; laboratory, two hours; outside study, six hours. Requisites: Mathematics 3A and 3B, or Mathematics 3A and 3B, or Mathematics 3A and 3B. Recommended requisite or corequisite: Mathematics 3C, 32A, or 32T. For undergraduate students in life, computational, engineering, and mathematical sciences. Active learning approach. Introduction to explicit modeling and simulation of dynamic biologic systems. Basic methodology for transforming biological pathways into computer-tractable system diagrams, graphs, and mathematical expressions for studying their behavior. Structural models, formulated from basic conservation and mass action laws and fundamental biological principles, are further transformed into first-order differential equations, and implemented in simulation diagrams for quantifying and exploring bio-system properties. Examples show how to use these explicit models to gain clarity on nature of biosystem phenomena, and frame questions and explore new ideas for research. Letter grading.

C183. Targeted Drug Delivery and Controlled Drug Release. (4) Lecture, three hours; discussion, two hours; outside study, four hours. Enforced requisites: courses 167L, 176. Studies the chemistry of drug delivery and the importance of clinical medicine and in silico biology. Exploring the field of drug delivery and the importance of designing drug delivery systems that can provide spatial and temporal control of drug release. Introduction to biomaterials with specialized structural and interfacial properties. Exploration of both chemistry and materials and chemical and biological properties, suitability to task, surface chemistry, and biocompatibility. Application and modeling of order differential equations, and implemented in simulation diagrams for quantifying and exploring bio-system properties. Examples show how to use these explicit models to gain clarity on nature of biosystem phenomena, and frame questions and explore new ideas for research. Letter grading.

M184. Introduction to Computational and Systems Biology. (2) (Same as Computational and Systems Biology M184 and Computer Science M184.) Lecture, two hours; outside study, two hours. Requisites: Computer Science 20A, 20B, 20L. New therapeutics require comprehensive understanding of modern biology, physiology, biomaterials, and engineering. Targeted delivery of drugs and small molecules to specific sites is important in treatment of challenging diseases and relevant to tissue engineering and regenerative medicine. Drug pharmacodynamics and clinical pharmacokinetics are explored. Application of deterministic and stochastic models (diffusion, transport, kinetics) to problems in drug formulation and delivery to establish rationale for design and development of novel drug delivery systems that can provide spatial and temporal control of drug release. Introduction to biomaterials with specialized structural and interfacial properties. Exploration of both chemistry and physical properties of devices and conditions used in drug release. Concurrently scheduled with course C283. Letter grading.

M184L. Introduction to Computational and Systems Biology Laboratory. (2) (Same as Computational and Systems Biology M184 and Computer Science M184.) Lecture, two hours; outside study, two hours. Requisites: Computer Science 20A, 20B, 20L. New therapeutics require comprehensive understanding of modern biology, physiology, biomaterials, and engineering. Targeted delivery of drugs and small molecules to specific sites is important in treatment of challenging diseases and relevant to tissue engineering and regenerative medicine. Drug pharmacodynamics and clinical pharmacokinetics are explored. Application of deterministic and stochastic models (diffusion, transport, kinetics) to problems in drug formulation and delivery to establish rationale for design and development of novel drug delivery systems that can provide spatial and temporal control of drug release. Introduction to biomaterials with specialized structural and interfacial properties. Exploration of both chemistry and physical properties of devices and conditions used in drug release. Concurrently scheduled with course C283. Letter grading.

C185. Computational and Systems Biology. (2) (Same as Computational and Systems Biology M185 and Computer Science M185.) Lecture, two hours; outside study, two hours. Requisites: course 167L, 176, and 180. Survey course designed to introduce students to computational and systems modeling and computer simulation of biological systems. New therapeutics require comprehensive understanding of modern biology, physiology, biomaterials, and engineering. Targeted delivery of drugs and small molecules to specific sites is important in treatment of challenging diseases and relevant to tissue engineering and regenerative medicine. Drug pharmacodynamics and clinical pharmacokinetics are explored. Application of deterministic and stochastic models (diffusion, transport, kinetics) to problems in drug formulation and delivery to establish rationale for design and development of novel drug delivery systems that can provide spatial and temporal control of drug release. Introduction to biomaterials with specialized structural and interfacial properties. Exploration of both chemistry and physical properties of devices and conditions used in drug release. Concurrently scheduled with course C283. Letter grading.
194. Research Group Seminars: Bioengineering. (4) Seminar, three hours. Limited to bioengineering undergraduate students who are part of research group. Study and analysis of current topics in bioengineering. Discussion of current research literature in research specialty of faculty member teaching course. Student presentation of projects in research specialty. May be repeated for credit. Letter grading.

199. Directed Principles in Engineering. (2 to 8) Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project report submitted with final submission to register. Approval by instructor required; enrollment petitions available in Office of Academic and Student Affairs. Letter grading.

Graduate Courses


C202. Human Physiological Systems for Bioengineering I. (4) Lecture, three hours; laboratory, two hours; discussion, one hour; outside study, eight hours. Preparation: Chemistry 33B, 33A, 33L, Life Sciences 39A, 39B, 39C, Mathematics 114 or 211A, 114 or 211A. Development of geometric and informatics intuitions for graduate students who are part of research group. Mathematical models of human speech production and perception mechanisms, speech analysis/synthesis. Techniques include linear prediction, filter-bank models, and homomorphic filtering. Applications include automatic recognition, and hearing aids. Letter grading.

C215. Biochemical Reaction Engineering. (4) Same as Chemical Engineering CM215. Lecture, four hours; discussion, one hour; outside study, seven hours. Preparation: Chemical Engineering 101C. Use of previously learned concepts of biophysical chemistry, thermodynamics, transport phenomena, and reaction kinetics to develop tools needed for technical design and economic analysis of biochemical reactors. Letter grading.

C217. Biomedical Imaging. (4) Same as Chemical and Engineering CM217). Three hours; discussion, one hour; outside study, eight hours. Preparation: Electrical and Computer Engineering 114 or 211A. Optical imaging modalities in biomedicine. Other nonoptical imaging modalities discussed briefly for comparison purposes. Letter grading.

C219. Principles and Applications of Magnetic Resonance Imaging. (4) Same as Physics and Biology in Medicine M219). Lecture, three hours; discussion, one hour; outside study, seven hours. Preparation: Magnetic Resonance Imaging 101. Use of previously learned concepts of biophysical chemistry, thermodynamics, transport phenomena, and reaction kinetics to develop tools needed for technical design and economic analysis of magnetic resonance imaging. Letter grading.

C220. Introduction to Medical Informatics. (2) Lecture, two hours; outside study, four hours. Designed for graduate students. Introduction to research topics
and issues in medical informatics for students new to field. Definition of this emerging field of study, current
issues in medical informatics for students new to field. Emphasis on current research endeavors and applications. S/U grading.

221. Human Anatomy and Physiology for Medical and Imaging Informatics. (4) Lecture, four hours; laboratory, eight hours. Reproduction to basic anatomy and physiology, with particular emphasis on understanding and visualization of anatomy and physiology through medical imaging. Introduction to acquisition, representation, and dissemination of anatomical knowledge in computerized clinical applications. Topics include: bone, cardiac, cardiovascular, gastrointestinal and genitourinary systems. Instructor, four hours; laboratory, eight hours. Letter grading.

222A-222B-222C. Programming Laboratories for Medical and Imaging Informatics I, II, III. (4-4-4) Lecture, two hours; laboratory, two hours; outside study, eight hours. Designed for graduate students. Programming laboratories to support coursework in other medical and imaging informatics core curriculum courses. Exposure to programming concepts for medical applications, with focus on basic abstract techniques. Used in medical imaging and medical informatics core curriculum courses. Letter grading. 222A. Requisites: Computer Science 31, 32, Program in Computing 20A, 20B. Course 222A is required to 222B, which is required to 222C. Integrated with topics presented in course 223A to reinforce concepts presented with practical experience. Projects focus on understanding medical imaging issues and implementation of basic protocols for healthcare environment. Emphasis on use of Dicom. Introduction to basic programming concepts presented with practical experience. Projects focus on medical imaging manipulation and decision support systems. 222B. Requisites: course 222A. Integrated with topics presented in courses 222A, 222B, and 222B. Reinforcement of programming concepts from 222A in medical applications, with focus on basic abstraction techniques used to extract meaningful features from medical text and imaging data and visualize results. Integrated with topics presented in courses 224B and M226. Projects present current and practical experience. Projects focus on medical imaging retrieval, knowledge representation, and visualization.

224A. Physics and Informatics of Medical Imaging. (4) Lecture, four hours; laboratory, eight hours. Overview of core concepts presented with practical experience. Projects focus on medical imaging manipulation and decision support systems. 224B. Advancements in Imaging Informatics. (4) Lecture, four hours; outside study, eight hours. Overview of core concepts presented with practical experience. Projects focus on clinical applications and new types of imaging made available through these modalities. Letter grading.

226. Medical Decision Making. (4) Same as Information Studies M255.) Lecture, four hours; discussion, one hour; outside study, eight hours. Designed for graduate students. Introduction to medical decision making. Focus on evidence-based decision making and decision rules related to process of care that can be used in clinical and public health decision making. Letter grading.

227. Medical Information Infrastructures and Internet Technologies. (4) Same as Information Studies M254.) Lecture, four hours; outside study, eight hours. Designed for graduate students. Introduction to networking, communications, and information retrieval techniques and tools. Letter grading.

228. Medical Decision Making. (4) Same as Information Studies M255.) Lecture, four hours; outside study, eight hours. Overview of issues related to medical decision making. Focus on evidence-based decision making and decision rules related to process of care that can be used in clinical and public health decision making. Letter grading.

229. Advanced Topics in Magnetic Resonance Imaging. (4) Same as Physics and Biology in Medicine M229.) Lecture, four hours. Requisite: course M219. Designed as a special seminar to pursue research related to development or translation of new magnetic resonance imaging (MRI) technique. Letter grading.

C239A. Biomolecular Materials Science I. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Overview of chemical and physical fundamentals of biomolecular materials science that concern materials aspects of molecular biology, cell biology, and bioengineering. Understanding of different types of interactions that exist between biomolecules, such as hydrogen bonding, van der Waals interactions, noncovalent interactions, and various medtech business models. Letter grading. C239B. Biomolecular Materials Science II. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Course C239A is not requisite to C239B. Overview of chemical and physical fundamentals of biomolecular materials science that concern materials aspects of molecular biology, cell biology, and bioen-
Understanding of different basic types of biomolecules, with emphasis on nucleic acids, proteins, and lipids. Study of how biological and biophysical research tools, manipulation of gene expression, directed mutagenesis and protein engineering, and relation of self-assembly to disease states. May be taken independently for credit. Concurrently scheduled with course CM140. Letter grading.

CM240. Introduction to Biomechanics. (4) (Same as Mechanical and Aerospace Engineering CM240.) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: Mechanical and Aerospace Engineering CM140A, BI263A, BI263B, or BI263C. Kinematics and dynamics of human body; skeletal adaptations to optimize load transfer, mobility, and function. Dynamics and kinematics. Fluid mechanics applications. Heat and mass transfer. Power generation. Laboratory simulations and tests. Concurrently scheduled with course CM140. Letter grading.

CM245. Molecular Biotechnology for Engineers. (4) (Same as Chemical Engineering CM245.) Lecture, four hours; discussion, two hours; outside study, seven hours. Selected topics in molecular biology that form foundation of biotechnology and biomedical industry today. Topics include recombinant DNA technology, molecular cloning, manipulation of DNA sequences, expression, directed mutagenesis and protein engineering, DNA-based diagnostics and DNA microarrays, antibody and protein-based diagnostics, genomics and proteomics, isolation of human genes, gene therapy, and tissue engineering. Concurrently scheduled with course CM145. Letter grading.

C247. Applied Tissue Engineering: Clinical and Industrial Perspective. (4) Lecture, three hours; discussion, two hours; outside study, seven hours. Requisites: course CM202D, Chemistry 20A, 20B, 20L, Life Sciences 7A. Overview of central topics of tissue engineering, with focus on how to build artificial tissues into regulated clinically viable products. Topics include biomaterials selection, cell source, delivery methods, FDA approval processes, and physical/chemical and biological testing. Case studies include skin and artificial skin, blood vessels, new tissue engineering, and liver, kidney, and other organs. Clinical and industrial perspectives of tissue engineering products. Manufacturing constraints, clinical limitations, and the challenges in designing and development of tissue-engineering devices. Concurrently scheduled with course CM147. Letter grading.

CM248. Introduction to Molecular Imaging. (4) (Same as Pharmacology CM248 and Physics and Biology in Medicine CM248.) Lecture, three hours; laboratory, one hour; outside study, seven hours. Exploration of role of molecular imaging in modern biology and medicine, including imaging physics, instrumentation, image processing, and applications of imaging for range of modalities. Practical experience provided through series of imaging laboratories. Letter grading.

M250B. Microelectromechanical Systems (MEMS) Fabrication. (4) (Same as Chemical and Mechanical Biomedical Engineering M250B and Mechanical and Aerospace Engineering M250B.) Lecture, three hours; discussion, one hour; outside study, eight hours. Enforced requisites: course CM250A or equivalent. Discussion of microfabrication processes used to construct MEMS. Coverage of many lithographic, deposition, and etching processes, as well as their combination in process integration. Includes chemical resists, optical lithography, and dry etching. Letter grading.

CM252. Microelectromechanical Systems (MEMS) Device Physics and Design. (4) (Same as Electrical and Computer Engineering M252 and Mechanical and Aerospace Engineering M282.) Lecture, four hours; discussion, one hour; outside study, seven hours. Introduction to MEMS design. Design methods, design rules, sensing and actuation mechanisms, microsensor, and microactuators. Designing MEMS to be produced with both foundry and nonfoundry processes. Computer-aided design for MEMS. Design project required. Letter grading.

C255. Fluid-Particle and Fluid-Structure Interactions in Microflows. (4) Lecture, four hours; laboratory, one hour; outside study, seven hours. Enforced requisites: course 110. Introduction to Navier/Stokes equations and analytical framework for calculating simple flows and numerical methods to solve and gain intuition for complex flows. Forces on particles in Stokes flow and finite-inertia flows. Fluid-particle systems with and without finite inertia and implications for particle-particle interactions. Secondary flows induced by structures and particles in confined flows. Particle separation laws, theory of flow fractionation, inertial focusing, structure-induced separations. Application concepts in internal biological flows and separations for biotechnology. Helps students become familiar with basic fluid mechanics and techniques, design and model microfluidic systems to manipulate fluids, cells, and particles, and develop strong intuition for how fluid and particles behave in arbitrarily structured microchannels over range of Reynolds numbers. Concurrently scheduled with course C155. Letter grading.

256. Drug Delivery Devices: Innovation and Translation. (4) Lecture, four hours; outside study, eight hours. Design of drug delivery devices and relevant biological applications. Topics include comprehensive and critical examination of current and emerging research and development on drug delivery devices with emphasis on innovation and translation. Topics include bioresponsive drug delivery systems, drug delivery matrices, MEMS and micro/nanorobots for drug delivery, nanomedicine-device combination products, and development and regulation of drug delivery devices. Students acquire theoretical and practical knowledge of drug delivery devices. Students gain ability to identify advanced approaches to drug delivery devices in effective and safe manner, from systemic administration to site-specific release; design appropriate mechanisms, materials, and structures for engineering drug delivery devices to deliver different therapeutics for treating variety of diseases; and propose methods and relevant experiments to validate efficacy of certain drug delivery devices. Letter grading.

M260. Neuroengineering. (4) (Same as Electrical and Computer Engineering M255 and Neuroscience M260.) Lecture, four hours; laboratory, three hours; outside study, five hours. Requisites: Mathematics 22A, 22B, 22L, or Statistics 116. Introduction to mechanisms of neural function, neuroelectricity, and measurement of neural activity. Current and emerging research and development in the field of neuroengineering and its design and development of bioelectric interfaces. Topics include biophysics, signal processing, measurement, amplification, and interpretation of brain signals, and use of brain signals for control of devices. Letter grading.

C266. Wearable Bioelectronics. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Practice of human health care may be on cusp of revolution, driven by unprecedented level of personalization enabled by advances in technology. Understanding of how wearable devices from curiosity-driven research to sophisticated technologies have transformed medical care is critical for design and development of wearable biotechnology. Understanding of how wearable devices from curiosity-driven research to sophisticated technologies have transformed medical care is critical for design and development of wearable devices. Understandings of the biophysical regulations of how wearable devices can be applied in real-world scenarios. Letter grading.

C271. Biotechnology of Cellular Therapies. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Covers state-of-the-art and emerging biotherapeutics in detail to provide comprehensive and critical examination of current and emerging research and development on drug delivery devices and relevant biological applications. Topics include bone tissue engineering, and role of mechanical forces. Concurrently scheduled with course C166. Letter grading.

M273. Micro- and Nanoscale Biosensing for Molecular Diagnostics. (4) (Same as Electrical and Computer Engineering M273.) Lecture, four hours; discussion, one hour; outside study, seven hours. Covers state-of-the-art and emerging biotherapeutics in detail to provide comprehensive and critical examination of current and emerging research and development on drug delivery devices and relevant biological applications. Topics include bioresponsive drug delivery systems, drug delivery matrices, MEMS and micro/nanorobots for drug delivery, nanomedicine-device combination products, and development and regulation of drug delivery devices. Students acquire theoretical and practical knowledge of drug delivery devices. Students gain ability to identify advanced approaches to drug delivery devices in effective and safe manner, from systemic administration to site-specific release; design appropriate mechanisms, materials, and structures for engineering drug delivery devices to deliver different therapeutics for treating variety of diseases; and propose methods and relevant experiments to validate efficacy of certain drug delivery devices. Letter grading.

C275. Machine Learning and Data-Driven Modeling in Bioengineering. (4) (Formerly numbered C275.) Lecture, four hours; laboratory, two hours; outside study, six hours. Requisites: Civil Engineering M20 or Mechanical and Aerospace Engineering M20 or Computer Science M32, 33A. Overview of foundational data analysis and machine-learning methods in bioengineering, focusing on how these techniques can be applied to interpret experimental observations. Topics include probabilities, distributions, parameter estimation, and techniques for model selection, with emphasis on comprehensible models. Students gain theoretical and practical knowledge of data analysis and machine-learning methods relevant to bioengineering. Application of these methods to experimental data from bioengineering studies. Students become sufficiently familiar with these techniques to design studies incorporating such analyses, execute analysis, and work in teams using similar approaches, and ensure correctness of their results. Letter grading.

CM278. Introduction to Biometrics. (Same as Materials Science and Engineering CM278.) Lecture, four hours; discussion, two hours; outside study, seven hours. Requisite: Chemistry 20A, 20B, and 20L, or Materials Science and Engineering 104. Engineering materials used in medicine and healthcare applications. Concurrently scheduled with course CM178. Letter grading.

C279. Biomaterials-Tissue Interactions. (4) Lecture, three hours; outside study, nine hours. Requisite: organic chemistry. In-depth exploration of host cellular response to biomaterials and tissue interaction. Focuses on the role of biomaterials in the biological response, with emphasis on mechanical properties, surface chemistry, and degradation. Letter grading.

C286. Drug Delivery Devices: Innovation and Translation. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Practice of human health care may be on cusp of revolution, driven by unprecedented level of personalization enabled by advances in technology. Understanding of how wearable devices from curiosity-driven research to sophisticated technologies have transformed medical care is critical for design and development of wearable biotechnology. Understanding of how wearable devices from curiosity-driven research to sophisticated technologies have transformed medical care is critical for design and development of wearable devices. Understandings of the biophysical regulations of how wearable devices can be applied in real-world scenarios. Letter grading.
281. Advanced Bioconjugate Design and Methods. (4) Lecture, four hours; outside study, eight hours. Requisite: course C295. Builds upon basic concepts of chemical conjugation course in course C281, and focuses on current state-of-art methods and designs for precise bioconjugate formation, especially in context of living cells. Focus on recently developed bioconjugate methods from primary literature, and their applications in vivo. Letter grading.

CM282R. Research Communication in Computational and Systems Biology. (4) (Same as Computer Science CM282R.) Lecture, four hours; outside study, eight hours. Requisites: course M182 or CM282R or Computational and Systems Biology 1.0M, four hours (course 199, Computational and Systems Biology 199, Computer Science 199, or equivalent). Closely directed, interactive, and real research experience in active quantitative systems biology research laboratory. Direction on how to focus on topics of current interest in scientific community, appropriate to student interests and capabilities. Critiques of oral presentations. Letter grading. Note: May be repeated for credit.

C283. Targeted Drug Delivery and Controlled Drug Release. (4) Seminar, two hours; discussion, two hours; outside study, seven hours. Requisites: Chemistry 20A, 20B, 20L. New therapeutics require comprehensive understanding of modern biology, physiology, biomaterials, and technology. Targeted delivery of genes and drugs and their controlled release are important in treatment of challenging diseases and relevant to tissue engineering and regenerative medicine. Drug delivery systems and clinical presentation of devices and compounds used in delivery and release. Concurrently scheduled with course C183. Letter grading.

M284. Functional Neuroimaging: Techniques and Applications. (3) (Same as Neuroscience M285, Physics and Biology in Medicine M285, Psychiatry M285, and Psychology M278.) Lecture, three hours. In-depth examination of activation imaging, including fMRI and electrophysiological methods, data acquisition and analysis, experimental design, and results obtained thus far in human systems. Strong focus on understanding technologies, how to design activation imaging experiments, and how to interpret results. Involves laboratory visits and design and implementation of functional MRI experiment. S/U or letter grading.


CM286. Computational Systems Biology: Modeling and Simulation of Biomedical Systems. (5) (Same as Computer Science CM286.) Lecture, four hours; laboratory, two hours; discussion, one hour. Requisites: Life Sciences 108, Mathematics 32A 1A, 32B, 33A, and 33B; or Mathematics 31A, 31B, 32A or 32T, 32A, and 32B. Dynamic biosystem modeling and computer simulation methods for studying biological/biomedical processes and systems at multiple levels of detail, from the cell to the organism and beyond. Applications include linear and nonlinear control systems, multicompartamental, epidemiological, pharmacokinetic, and other biomodeling methods. Emphasis on modeling of cellular, organ, and population levels. Both theory- and data-driven modeling, with focus on translating biomodeling goals and data into dynamical mathematical models, and implementing them for simulation, quantification, and analysis. Numerical simulation, optimization, and parameter identifiability and search algorithms, with model discrimination and analysis and software exercises in PC laboratory assignments. Concurrently scheduled with course CM186. Letter grading.

CM287. Research Communication in Computational and Systems Biology. (4) (Same as Computer Science CM287.) Lecture, four hours; outside study, eight hours. Requisites: course M182 or CM287 or Computational and Systems Biology 1.0M, four hours. Experience (course 199, Computational and Systems Biology 199, Computer Science 199, or equivalent). Closely directed, interactive, and real research experience in active quantitative systems biology research laboratory. Direction on how to focus on topics of current interest in scientific community, appropriate to student interests and capabilities. Critiques of oral presentations. Letter grading. Note: May be repeated for credit.

C289. Advanced Modeling Methodology for Dynamic Biomedical Systems. (4) (Same as Computer Science M296A and Medicine M270C.) Lecture, four hours; outside study, eight hours. Requisite: Electrical Engineering 142 or Mathematics 115A or Mechanical and Aerospace Engineering 171A. Development of dynamic systems modeling methodology for physiological, biomedical, pharmacological, chemical, and related systems. Emphasis on compendial, noncompartmental, and input/output models, linear and nonlinear. Emphasis on model applications, limitations, and relevance in biomedical science. May be repeated for credit. S/U grading.

M295A. Advanced Modeling in Systems Biology. (2) Seminar, one to four hours; outside study, two to five hours. Limited to bioengineering graduate students. Advanced study and analysis of current topics in biological, biomedical, pharmacological, chemical, and related systems. Emphasis on compendial, noncompartmental, and input/output models, linear and nonlinear. Emphasis on model applications, limitations, and relevance in biomedical science. May be repeated for credit. S/U grading.

295A-295K. Seminars: Research Topics in Bioengineering. (2 each) Seminar, two hours; outside study, four hours. Limited to bioengineering graduate students. Advanced study and analysis of current topics in biological, biomedical, pharmacological, chemical, and related systems. Emphasis on compendial, noncompartmental, and input/output models, linear and nonlinear. Emphasis on model applications, limitations, and relevance in biomedical science. May be repeated for credit. S/U grading.

295L. Seminar: Research Topics in Bioengineering—Cell and Tissue Engineering. (2) Seminar, one to four hours; outside study, two to five hours. Limited to bioengineering graduate students. Advanced study and analysis of current topics in bioengineering. Discussion of current research and literature in cell engineering, tissue engineering, and bioengineering. Emphasis on student presentation of projects in research specialty. May be repeated for credit. S/U grading.

295M. Seminar: Research Topics in Bioengineering—Molecular Cell Bioengineering. (2) Seminar, one to four hours; outside study, two to five hours. Limited to bioengineering graduate students. Advanced study and analysis of current topics in bioengineering. Discussion of current research and literature in cell engineering, tissue engineering, and bioengineering. Emphasis on student presentation of projects in research specialty. May be repeated for credit. S/U grading.

295N. Seminar: Research Topics in Bioengineering—Research in Biophotonics. (2) Seminar, one to four hours; outside study, two to five hours. Limited to bioengineering graduate students. Advanced study and analysis of current topics in bioengineering. Discussion of current research and literature in biophotonics, medical imaging, and computational imaging. Emphasis on student presentation of projects in research specialty. May be repeated for credit. S/U grading.

295O. Seminar: Research Topics in Bioengineering—Research in Modeling of Drug Effects. (2) Seminar, one to four hours; outside study, two to five hours. Limited to bioengineering graduate students. Advanced study and analysis of current topics in bioengineering. Discussion of current research and literature in modeling of drug effects. Emphasis on student presentation of projects in research specialty. May be repeated for credit. S/U grading.

295P. Seminar: Research Topics in Bioengineering—Research in Wearable Bioelectronics for Personalized Health Care. (2) Seminar, one to four hours; outside study, two to five hours. Limited to bioengineering graduate students. Advanced study and analysis of current topics in biomedical instrumentation. Discussion of current research and literature in biotransducers, biosensors and bioelectronics, circuitry and signal processing. Student presentation of projects every week in research specialty. May be repeated for credit. S/U grading.

295Q. Seminar: Research Topics in Bioengineering—Research in Biomolecular Engineering and Molecular Circuits. (2) Seminar, one to four hours; outside study, two to five hours. Limited to bioengineering graduate students. Advanced study and analysis of current topics in bioengineering. Discussion of current research and literature in molecular electronics, molecular circuits, and molecular computing. Emphasis on student presentation of projects in research specialty. May be repeated for credit. S/U grading.

295R. Seminar: Research Topics in Bioengineering—Research in Synthetic Immunology and Biomimetic System Research. (2) Seminar, one to four hours; outside study, two to five hours. Limited to bioengineering graduate students. Advanced study and analysis of current topics in bioengineering. Discussion of current research and literature in synthetic immunology, biomimetic system research. Emphasis on student presentation of projects in research specialty. May be repeated for credit. S/U grading.

295S. Seminar: Research Topics in Bioengineering—Biomicrofluidics and Bionanotechnology Research. (2) Seminar, one to four hours; outside study, two to five hours. Limited to bioengineering graduate students. Advanced study and analysis of current topics in bioengineering. Discussion of current research and literature in biomicrofluidics, bionanotechnology research. Emphasis on student presentation of projects in research specialty. May be repeated for credit. S/U grading.

295T. Seminar: Research Topics in Bioengineering—Biomaterials and Tissue Engineering Research. (2) Seminar, one to four hours; outside study, two to five hours. Limited to bioengineering graduate students. Advanced study and analysis of current topics in bioengineering. Discussion of current research and literature in biomaterials and tissue engineering research. Emphasis on student presentation of projects in research specialty. May be repeated for credit. S/U grading.

295U. Seminar: Research Topics in Bioengineering—Biomimetic System Research. (2) Seminar, one to four hours; outside study, two to five hours. Limited to bioengineering graduate students. Advanced study and analysis of current topics in bioengineering. Discussion of current research and literature in biomimetic system research. Emphasis on student presentation of projects in research specialty. May be repeated for credit. S/U grading.

295V. Seminar: Research Topics in Bioengineering—Molecular Cell Bioengineering. (2) Seminar, one to four hours; outside study, two to five hours. Limited to bioengineering graduate students. Advanced study and analysis of current topics in bioengineering. Discussion of current research and literature in molecular cell bioengineering. Emphasis on student presentation of projects in research specialty. May be repeated for credit. S/U grading.
Bioinformatics
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Bioinformatics
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Program e-mail
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Jason Ernst, PhD (Biological Chemistry, Computational Medicine, Computer Science)
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Alexander Hoffmann, PhD (Microbiology, Immunology, and Molecular Genetics)
Kirk E. Lohnmueller, PhD (Ecology and Evolutionary Biology)

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Xianghong Jasmine Zhou, PhD (Pathology and Laboratory Medicine)

Overview
Bioinformatics is defined broadly as the study of the inherent structure of biological information. It is the marriage of biology and the information sciences. Examples of current bioinformatics research include the analysis of gene and protein sequences to reveal protein evolution and alternative splicing, the development of computational approaches to study and predict protein structure to further understanding of function, the analysis of mass spectrometry data to understand the correlation between phosphorylation and cancer, the development of computational methods to utilize expression data to reverse engineer gene networks in order to more completely model cellular biology, and the study of population genetics and its connection to human disease.

Graduates in bioinformatics can expect to engage in any combination of research, teaching, clinical service, and consultation. Within universities and research centers there is a growing need for bioinformatics researchers who can analyze new sources of high-throughput experimental data in biology, medicine, and bioengineering. Biotechnology and pharmaceutical companies also seek bioinformatics graduates for applied research on disease—and drug discovery. Medical centers are also increasingly hiring bioinformatics graduates as genomics data become important in medical research and clinical applications.

Graduate Major
Bioinformatics MS, PhD

Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Bioinformatics
Graduate Courses

201. Seminar: Advanced Methods in Computational Biology (2) Seminar, one hour; discussion, one hour. Designed for advanced graduate students. Examination of computational methodology in bioinformatics and computational biology through presentation of current research literature. How to select and apply methods from computational and mathematical disciplines to problems in bioinformatics and computational biology; development of novel methodologies. S/U or letter grading.

202. Bioinformatics Interdisciplinary Research Seminar (4) Seminar, two hours; discussion, two hours. Concrete examples of how biological questions about genomics data map to and are solved by methodologies from other disciplines, including statistics, computer science, and mathematics. May be repeated for credit. S/U or letter grading.

M221. Introduction to Bioinformatics. (4) (Same as Chemistry CM260A, Computer Science CM221, and Human Genetics M260A.) Lecture; four hours; discussion, two hours. Required: Computer Science 131A, Mathematics 170A, or Statistics 100A. Prior knowledge of biology not required. Designed for engineering students as well as students from biological sciences and medical school. Introduction to bioinformatics and methodologies, with emphasis on concepts and inventing new computational and statistical techniques to analyze biological data. Focus on sequence analysis and alignment algorithms. S/U or letter grading.

M223. Statistical Methods in Computational Biology. (4) (Same as Biomatics M271 and Statistics M254.) Lecture, three hours; discussion, one hour. Preparation: elementary probability concepts. Required: course M221 or Statistics 100A or 200A. Introduction to statistical methods developed and widely applied in several branches of computational biology, such as gene expression, sequence alignment, motif discovery, comparative genomics, and biological networks, with emphasis on understanding of basic statistical concepts and use of statistical inference to solve computational problems. S/U grading.

M224. Machine Learning Applications in Genomics. (4) (Same as Computer Science CM224 and Human Genetics CM224.) Lecture, four hours; discussion, two hours; outside study, six hours. Required: Computer Science 131A, Mathematics 170A, or Statistics 100A. Designed for engineering students as well as students from biological sciences and medical school. Introduction to computational analysis of genetic variation and computational interdisciplinary research in genomics. Topics include introduction to genetics, identification of genes involved in disease, inferring human population history, technologies for obtaining genetic information, and genetic sequencing. Focus on formulating interdisciplinary problems as computational problems and then solving those problems using computational techniques from statistics and computer science. Letter grading.

M225. Computational Methods in Genomics. (4) (Same as Computer Science M225 and Human Genetics M265.) Lecture, two and one half hours; discussion, two and one half hours; outside study, seven hours. Introduction to computational approaches in bioinformatics, genomics, and computational genetics and preparation for computational interdisciplinary research in genomics and genomics. Topics include genome analysis, regulatory genetics, association analysis, association study design, isolated and admixed populations, population substructure, human structural variation, model organisms, and genomic technologies. Computational techniques and methods include those from statistics and computer science. Letter grading.

M226. Machine Learning in Bioinformatics. (4) (Same as Biomatics M226, Computer Science M226, and Human Genetics M226.) Lecture, four hours; outside study, eight hours. Enforced requisite: Computer Science 32 or Program in Computing 10C with grade of C– or better, Mathematics 33A, and one course from Civil Engineering 110, Electrical and Computer Engineering 131A, Mathematics 170A, Mathematics 170E, or Statistics 100A. Designed for engineering students as well as students from biological sciences and medical school.
Faculty Committee

John J. Colicelli, PhD (Biological Chemistry)
Hilary A. Collier, PhD (Molecular, Cell, and Developmental Biology)
Stephanie M. Correa, PhD (Integrative Biology and Physiology)
Andrew Goldstein, PhD (Molecular, Cell, and Developmental Biology; Urology)
Thomas G. Graeber, PhD (Molecular and Medical Pharmacology)
Aldons J. Lusis, PhD (Human Genetics; Medicine; Microbiology, Immunology, and Molecular Genetics)
Karen M. Lyons, PhD (Molecular, Cell, and Developmental Biology; Orthopaedic Surgery)
Megan M. McEvoy, PhD (Society and Genetics)
Carlos Portera-Caillau, PhD (Neurobiology)
Margot E. Quinlan, PhD (Chemistry and Biochemistry)
Felix E. Schweizer, PhD (Neurobiology)

Overview

The Biomedical Research minor is designed to incorporate research into undergraduate science education at UCLA. Applications may be submitted by any UCLA student who meets the admission requirements and has the potential to satisfy the requirements. Students explore the scientific questions and experimental approaches of biomedical research. Faculty members and staff facilitate early placement of students into laboratories on campus for independent research. Students are trained to analyze research literature, present their research in oral and poster formats, and appreciate the ethical, historical, and philosophical issues facing biomedical research.

Undergraduate Minor

Biomedical Research Minor Admission

Admission to the Biomedical Research minor is competitive, and application follows completion of Biomedical Research 5HA, 10H, Honors Collegium 70A, Molecular, Cell, and Developmental Biology 30H, or an approved alternative course. Applications (see the minor website) must be submitted no later than the first term of the junior year. Students must be in good academic standing and demonstrate a genuine interest in research. All degree requirements, including the specific requirements for this minor, must be fulfilled within the unit maximum set forth by the College of Letters and Science.

The Minor

Required Lower-Division Courses (8 units): Biomedical Research 5HB (or an approved alternative course) and Molecular, Cell, and Developmental Biology 60.

Required Upper-Division Courses (24 units): (1) Sixteen units (four courses) of approved laboratory research through either course 198 or 199 (or an approved alternative course); (2) one history of science or philosophy of science course selected from History 179A, 179B, 180A, Neurobiology M169, Philosophy 124, 125, 137, or 155A (or an approved alternative course); and (3) Biomedical Research 193H and 194H, or the required journal club seminars (such as Chemistry and Biochemistry 193A) for students in the Integrated and Interdisciplinary Undergraduate Research Program, MARC, or UC LEADS.

Students are expected to file a senior research thesis after completion of their 16 research units and must participate in at least one conference in which they present their research. Up to 8 units of research may be applied toward departmental requirements for the major. The research project and thesis may be the same as those for departmental honors.

Policies

Transfer credit for any required course is subject to approval. Students with a grade of less than B (3.0) in any minor course or a cumulative grade-point average of less than 3.0 are subject to dismissal from the minor.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade. Successful completion of the minor is indicated on the transcript and diploma.

Biomedical Research Lower-Division Courses

1A. Science in Your Time. (5) Lecture; three hours; discussion, one hour. Exploration of current topics in biology from media sources like news organizations and TED Talks, tracing information back to primary research. Students learn to critically evaluate primary resources. Discussion of bias in system producing primary research from undergraduate education through tenure faculty, and medicine and national science funding (National Institutes of Health and National Science Foundation). Addresses lack of Black and Latinx representation and its impact on science valued by current system. Letter grading.

5HA. Biomedical Research: Concepts and Strategies. (4) Lecture, three hours. Designed for freshmen/sophomores. Exploration of scientific concepts and experimental approaches through seminars by UCLA faculty members on their cutting-edge research. Topics may include areas of study such as cancer, stem cells, and infectious disease, as well as more basic research in cell and molecular biology. Letter grading.

5HB. Biomedical Research: Essential Skills and Concepts. (4) Lecture, three hours; discussion, one hour. Requisite: course 5HA. Designed for freshmen/sophomores. Exploration of scientific concepts and experimental approaches through seminars by UCLA faculty members on their cutting-edge research. Topics may include areas of study such as cancer, stem cells, and infectious disease, as well as more basic research in cell and molecular biology. Student investigation of one or more laboratories on campus and presentation of brief synopsis of single research project from one laboratory. Letter grading.

10H. Research Training in Genes, Genetics, and Genomics. (8) Lecture, 90 minutes; laboratory, six hours; computer laboratory, 90 minutes. Limited to 30 students. Basic training in biological research, including techniques in genetics, model organism, bioinformatics, functional genomics, electron microscopy.

BIO MEDICAL RESEARCH

Interdisciplinary Minor

College of Letters and Science

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Box 957246
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Biomedical Research

310-825-0237
E-mail contact

Karen M. Lyons, PhD, Chair
Part of Undergraduate Research Consortium in Functional Genomics sponsored by Howard Hughes Medical Institute Professors Program. Letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. Letter grading.

193H. Journal Club Seminars: Current Topics in Biomedical Research. (2) Seminar, three hours. Limited to Biomedical Research minor students. Presentation and discussion of recent papers from primary literature in biosciences. Letter grading.

194H. Research Group Seminars: Data Presentation in Biomedical Research. (2) Seminar, three hours. Requisite: course 193H. Limited to Biomedical Research minor students. Preparation of oral presentations based on student laboratory research at UCLA. May be repeated for credit. Letter grading.

199. Directed Biomedical Research. (4) Tutorial, 12 hours. Limited to Biomedical Research minor students. Supervised individual research under guidance of faculty mentor. Culminating report describing progress and signed by student and faculty mentor required. May be repeated for credit. Individual contract required. Letter grading.

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Thomas R. Belin, PhD, Vice Chair

Faculty Roster

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Ronald S. Brookmeyer, PhD
Catherine M. Crespi, PhD, in Residence
Michele Guindani, PhD
Grace H.J. Kim, PhD, in Residence
Gang Li, PhD
Jingyi Jessica Li, PhD
Honghu Liu, PhD
Christina M. Ramirez, PhD
Damil Senturk, PhD
Marc A. Suchard, PhD
Catherine A. Sugar, PhD, in Residence
Donatello Teleca, PhD
Robert E. Weiss, PhD
Weng Kee Wong, PhD
Hua Zhou, PhD

Professors Emeriti
Abdelmonem A. Affi, PhD
William G. Cumberland, PhD
Dorota M. Dabrowska, PhD

Assistant Professors
Hilary J. Aralis, PhD, in Residence
Sean A. Darling-Hammond, PhD
Andrew J. Holbrook, PhD

Adjunct Professors
David Elashoff, PhD
David W. Gjertson, PhD

Martin L. Lee, PhD
Jason Hall Moore, PhD
Adjunct Associate Professor
Jin Zhou, PhD
Adjunct Assistant Professor
Zhe Fei, PhD

Overview
In recent years biostatistics has become one of the most stimulating areas of applied statistics. The field encompasses the methodology and theory of statistics as applied to problems in the life and health sciences. Biostatisticians are trained in the skilled application of statistical methods to the solution of problems encountered in public health and medicine. They collaborate with scientists in nearly every area related to health and have made major contributions to our understanding of AIDS, cancer, genetics, bioinformatics, and immunology, as well as other areas. Further, biostatisticians spend a considerable amount of time developing and evaluating the statistical methodology used in those projects. The Department of Biostatistics offers Master of Science (MS) and Doctor of Philosophy (PhD) degrees in Biostatistics and, through the Fielding School of Public Health, Biostatistics MPH (see Public Health Schoolwide Programs). All students receive a balanced education, blending theory and practice.

A degree in biostatistics prepares students for work in a wide variety of challenging positions in government, industry, and education. Graduates have found careers involving teaching, research, and consulting in such fields as medicine, public health, life sciences, and survey research. There has always been a strong demand for well-trained biostatisticians; graduates have had little difficulty finding employment well suited to their particular interests.

Graduate Majors

Biostatistics MS, PhD

Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcement, other publications, and websites of the schools, departments, and programs.

Master of Data Science in Health

Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.
Biostatistics

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar; one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery. (CSLA) P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work); three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must declare academic standing and enroll in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

100A. Introduction to Biostatistics. (4) Lecture, three hours; discussion, one hour; laboratory, one hour. Preparation: one biological or physical sciences course. Suitable for juniors/seniors. Limited to nonmajors. Not open for credit to students with credit for course 120. Students who have completed courses in statistics may enroll only with consent of instructor. Introduction to methods and concepts of statistical analysis. Sampling situations, with special attention to those occurring in biological sciences. Topics include distributions, tests of hypotheses, estimation, types of error, significance and confidence levels, sample size. P/NP or letter grading.

100B. Introduction to Biostatistics. (4) Lecture, three hours; discussion, one hour; laboratory, one hour. Requisite: course 100A or Public Health 200A. Introduction to analysis of variance, linear regression, and correlation analysis. P/NP or letter grading.

120. Biostatistics in Public Health. (5) Lecture, three hours; discussion, one hour. Limited to Public Health majors. Not open for credit to students with credit for course 100A. Introduction to basic concepts in biostatistical analysis, presentation of data, and biostatistical aspects of design of public health studies. Special emphasis on application of biostatistical concepts to public health issues. Interpretation and communication of biostatistical findings is stressed. Focus of concepts and applications rather than mathematical theory. Letter grading.

197. Individual Studies in Biostatistics. (2 to 4) Tutorial, four hours. Limited to juniors/seniors. Individual intensive study of scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

200A. Methods in Biostatistics A. (4) Lecture, three hours; discussion, one hour; laboratory, one hour. First course in biostatistical methods intended for graduate students in biostatistics to prepare students pursuing careers as practicing biostatisticians. Prior knowledge of probability or statistics not assumed. Students should have working knowledge of calculus and be very comfortable with mathematical and algebraic reasoning. Includes basic concepts in analysis, presentation of data, and statistical aspects of design of studies. Special emphasis is given to application of statistical methods to public health, medical, biological, and health services. Introduction to estimation and hypothesis testing. Examination of statistical findings is stressed. Focus on methodology, applications, and concepts rather than mathematical statistics or probability theory. S/U or letter grading.


200C. Methods in Biostatistics C. (4) Lecture, three hours; discussion; one hour; laboratory, one hour. Prerequisite: preparation: courses 200A, 200B, and previous courses in linear regression. Analysis for students pursuing graduate degree in biostatistics. Generalized linear models, description, and analysis of discrete data with applications to public health. Students are trained to identify different types of discrete data; use statistical software to apply statistical modeling; summarize, and analyze data; use appropriate statistical techniques for analyzing public health data using generalized linear models; apply generalized estimating equations for analyzing longitudinal data; and write formal statistical report of data analysis for public health researcher. S/U or letter grading.

201A. Topics in Applied Regression. (4) Lecture, three hours; discussion; one hour; laboratory, one hour. Requisites: courses 100A and 100B, or 200A and 200B. Designed for master’s and doctoral students in fields outside biostatistics. Topics in linear regression and other related methods. When and how to use linear regression and related methods and how to properly interpret results. Heavy emphasis on practical application as opposed to theoretical development. S/U or letter grading.

201B. Topics in Applied Regression. (4) Lecture, three hours; discussion; one hour; laboratory, one hour. Requisite: course 201A. Further studies in multiple linear regression, including applied multiple regression models, diagnostics and model assessment, factorial and repeated measures analysis of variance models, nonlinear regression, logistic regression, propensity scores, matching versus stratification, Poisson regression, and classification tree. Applications to biomedical and public health scientific problems. Letter grading.


202C. Theory of Bayesian Statistics. (4) Lecture, three hours; discussion; one hour. Requisite: courses 200A, 200B, 202B, or equivalent, or consent of instructor. Mathematical underpinnings of Bayesian approach to statistical inference; closed form computations; computational hierarchical models; selection; hypothesis testing; computational inference; nonparametric methods. S/U or letter grading.

203A. Introduction to Data Management and Statistical Computing. (4) Lecture, three hours; laboratory, two hours. Prior knowledge of programming not assumed. Coverage of mechanisms of converting data from whatever form it may arrive and preparing it for processing by statistical software. Letter grading.

203B. Introduction to Data Science. (4) Lecture, three hours; laboratory, two hours. Requisite: course 203A. Principles of data science. Topics include Health Insurance Portability and Accountability Act (HIPAA) and data ethics, databases and data retrieval, data merging and cleaning, data visualization and web presentation, reproducible research, collaborative research, cluster computing, and cloud computing. S/U or letter grading.

M208. Introduction to Demographic Methods. (4) (Same as Community Health Sciences M208, Economics M208, and Sociology M213A) Lecture, four hours. Preparation: one introductory statistics course. Introduction to methods of demographic analysis. Topics include demographic rates, standardization, decomposition of differences, life tables, survival analysis, cohort analysis, birth interval analysis, models of population change, population projection, and demographic data sources. Letter grading.

210. Statistical Methods for Categorical Data. (4) Lecture, three hours; discussion; one hour. Requisites: courses 200A and 200B. Statistical techniques for analysis of categorical data; discussion and illustration of their applications and limitations. S/U or letter grading.


216. Mathematical Methods for Biostatistics. (4) Lecture, four hours. Requisites: Mathematics 31A, 31B, 33A. Designed and required for incoming first-year MS and PhD students. Introduction to specialized topics in advanced calculus, linear algebra, and scientific computing that are important for subsequent courses in MS and PhD Biostatistic curriculum. Emphasis on interplay between mathematical methods and scientific computing within R statistics computing environment. Emphasis on computational methods commonly used by statisticians. Examination of several of the most common R functions used in statistical modeling such as regression analysis and random effects models. P/NP or letter grading.


230. Statistical Graphics. (4) Lecture, three hours; laboratory, one hour. Emphasis: course 200A (may be taken concurrently). Graphical data analysis emphasizes use of visual displays of quantitative data to gain insight into data structure by exploring patterns and structures, and to enable graphical and numerical analyses, especially assumption validity checking. Principles of graph construction, graphical methods, and perception issues. S/U or letter grading.

231. Statistical Power and Sample Size Methods for Health Research. (4) Lecture, three hours; laboratory, one hour. Requisites: courses 200A, 200B. Strongly recommended: variety of other graduate coursework. Sample size and power methods for common study designs, including comparison of means and proportions, ANOVA, time-to-event data, group sequential trials, linear regression, cluster randomized trials and multilevel data, with emphasis on designing randomized trials. Discussion also of multiple endpoints. S/U or letter grading.


233. Statistical Issues in Global Health. (4) Lecture, three hours. Requisite: course 200C. Recommended requisite or corequisite: course 2215. Consideration of statistical issues in addressing contemporary global health challenges. Topics include statistical methods for analyzing public health surveillance data, methods for measuring and forecasting health of
populations, epidemic modeling, agent-based modeling, evaluating and addressing sampling issues in public health data, and design and analysis of large-scale precision trials such as vaccine trials and cancer screening programs. Applications to both infectious and noninfectious diseases. Case studies include HIV/AIDS, cancer, pandemic flu, and topical global health challenges such as recent outbreaks of emerging viruses.

244. Master's Seminar and Research for Graduating Biostatistics MS Students. (4) Seminar, three hours, introduction to resources for finding statistical literature. Discussion of principles of making statistical models, selecting critical parts of reports, including writing abstracts and choice of key words. Discussion of journal article preparation and submission process to help students make progress on their master’s reports. Letter grading.

245. Advanced Seminar: Biostatistics. (2) Seminar, two hours. Requisites: courses 200C, 202B, current research in biostatistics. May be repeated for credit.

246. Doctoral Students Seminar. (2) Seminar, two hours. Requisites: courses 200C, 202B. Limited to Biostatistics majors. Biostatistics doctoral seminar, with presentations given by students on current research topics in biostatistics and feedback provided by instructor and peers. S/U grading.

M236. Longitudinal Data. (4) Same as Biostatistics M238. Lecture, three hours; laboratory, one hour. Requisite: course 200B or another substantial regression course. Bayesian approach to statistical inference, with emphasis on biomedical applications and concepts rather than mathematical theory. Topics include large sample Bayes inference from likelihoods, noninformative priors, empirical Bayes. Bayesian approaches to linear and nonlinear regression, model selection, Bayesian hypothesis testing, and numerical methods. S/U or letter grading.

M237. Applied Genetic Modeling. (4) Same as Biomathematics M237. Lecture, three hours; discussion, one hour. Requisites: courses 200B, 202B, or equivalent. Philosophical foundations, logical paradoxes, decision analysis, selection bias, confounding, ecological paradoxa, potential outcome analyses, Rubin causal model, propensity scores, competing perspectives on path analysis and graphical structural-equation models, experiments with noncompliance, regression to the mean, decision making when causality is disputed, role of ethics in decision making. S/U or letter grading.

M239. Mathematical and Statistical Phylogenetics. (4) Same as Biostatistics M239. Lecture, three hours; laboratory, one hour. Requisite: course 200B or another substantial regression course. Introduction of various methods for exploring, modeling, and analyzing spatially referenced datasets, with emphasis on environmental/natural sciences and public health. Bayesian statistical methods and foundations for carrying out principled and scientifically rigorous inference on spatially referenced data and computational methods and algorithms for executing statistical modeling in practice. Practical examples and applications demonstrated using open-source statistical software environment R and datasets from diverse fields, such as public health, environmental health, natural sciences, and general quantitative sciences.

250A. Linear Statistical Models. (4) Lecture, three hours; discussion, one hour. Recommended preparation: statistical probability. Designed for students pursuing graduate degrees in biostatistics. Theoretical foundation for linear models with applications to different types of problems in biomedical field. Emphasis on understanding theory and applications of linear models. Letter grading.

250B. Linear Statistical Models. (4) Lecture, three hours; discussion, one hour. Requisites: courses 200A, 202B, 205B or statistical foundation for linear models with applications to different types of problems in biomedical field. Emphasis on mathematical training and understanding of linear models, including topics in model selection and inferences that may include theory and tests for various types of model misspecification, such as heteroscedasticity and outliers. Other selected topics may include ridge regression, Bayesian estimation in linear models, REML, prediction, and model selection issues. Some data analysis, instructions for STATA provided. Letter grading.

250C. Multivariate Biostatistics. (4) Lecture, three hours; discussion, one hour. Requisites: courses 205A, 205B. Recommended requisites: courses 205A, 205B. Theory and methods for multivariate analysis with non-exclusive focus on biomedical applications. Topics include graphical models, component analysis, factor analysis, clustering, discriminant analysis, models for longitudinal and clustered data. S/U or letter grading.

255A. Advanced Probability and Statistics. (4) Lecture, three hours; discussion, one hour. Requisites: course 202D or equivalent. Mathematics 131A or consent of instructor. Survey of probability theory, with special emphasis on applications to biostatistics. Topics include probability spaces and random variables, generating functions, conditioning, discrete-time martingales, applications to finite sample analysis of statistical procedures. S/U or letter grading.

255B. Advanced Probability and Statistics. (4) Lecture, three hours; discussion, one hour. Requisites: course 205A or consent of instructor, Mathematics 131A. Survey of advanced topics in probability and mathematical statistics, with special emphasis on applications to biostatistics. Topics include laws of large numbers, central limit theorems, basic concepts from stochastic processes, and applications to large sample theory and statistical inference.


272. Theoretical Genetic Modeling. (4) Same as Biomathematics M272A and Human Genetics M270A. Lecture, three hours; discussion, one hour. Requisites: Mathematics 115A, 131A, Statistics 100B. Mathematical models in statistical genetics. Topics include population genetics, genetic epidemiology, gene mapping, design of genetics experiments, DNA sequence analysis, and molecular phylogeny. S/U or letter grading.

273. Machine Learning. (4) Lecture, four hours. Requisites: course 200C and Mathematics 115A. Covers theoretical underpinnings and practical applications of modern machine-learning and other data-intensive algorithms, including support vector machines and random forests. Students learn to download and use variety of software tools that are available for free on web. S/U or letter grading.


275. Advanced Survival Analysis. (4) Lecture, four hours. Discussion, one hour. Requisites: courses 250A, 255B. Time-to-event data arise in many fields, such as medicine, reliability theory, demography, sociology, economics, and astronomy. Overview of common stochastic process models and methods for analysis of such data. Examples include continuous-time Markov chain and semi-Markov models, and frailty and copula models. S/U or letter grading.


285. Advanced Topics: Recent Developments. (4) Lecture, three hours; discussion, one hour. Advanced topics and developments in biostatistics not covered in other courses. Topics selected from current literature or in other courses. Possible topics include time-series analysis, classification procedures, correspondence analysis, etc. S/U or letter grading.
296. Seminar: Research Topics in Biostatistics. (1 to 4) Seminar, two hours. Advanced study and analysis of current topics in biostatistics. Discussion of current research and literature in research specialty of faculty member teaching course. S/U grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Teaching apprenticeship under active guidance and supervision of regular faculty member. Includes field placement and re-program training documentation on form available from Student Affairs Office. May not be applied toward MS minimum course requirement; 4 units may be applied toward 44-unit minimum total required for MPH degree. Letter grading.

400. Field Studies in Biostatistics. (4) Fieldwork, to be arranged. Field observation and studies in selected community organizations for health promotion or medical care. Students receive supervised field placement and re-program training documentation on form available from Student Affairs Office. May not be applied toward MS minimum course requirement; 4 units may be applied toward 44-unit minimum total required for MPH degree. Letter grading.

401A. Principles of Biostatistical Consulting. (2) Lecture, one hour; discussion, one hour. Requisites: courses 100B and 200B, and 200A. Preparation of structural format to be used throughout to illustrate principles of data management and analysis for addressing biomedical and health-related hypotheses. Letter grading.

402A. Principles of Biostatistical Consulting. (2) Lecture, one hour; discussion, one hour. Requisites: courses 100B and 200B, and 200A. Preparation of structural format to be used throughout to illustrate principles of data management and analysis for addressing biomedical and health-related hypotheses. Letter grading.

402B. Biostatistical Consulting. (4) Discussion, two hours; laboratory, two hours. Requisite: course 402A. Principles and practices of biostatistical consulting. May be repeated for credit. S/U grading.

403B. Computer Management and Analysis of Health Data Using SAS. (4) (Same as Epidemiology M403B.) Lecture, two hours; laboratory, two hours. Introduction to practical issues in management and analysis of health data using SAS programming language. Cross-sectional and longitudinal population-based data sets to be used throughout to illustrate principles of data management and analysis for addressing biomedical and health-related hypotheses. Letter grading.

404. Applied Multivariate Biostatistics. (4) Lecture, three hours; laboratory, one hour. Preparation: at least two upper-division research courses. Requisite: course 100B. Use of multiple regression, principal components, factor analysis, discriminant function analysis, logistic regression, and canonical correlation in biomedical data analysis. S/U (optional only for non-division majors) or letter grading.

409. Doctoral Statistical Consulting Seminar. (2) Seminar, one hour; laboratory, four hours. Designed for doctoral students. Development of experience and expertise in collaborating with faculty in Schools of Public Health and Medicine. Students meet with investigators to develop design and protocol for data analysis, implement data protocol when data is obtained, and write up study with lead investigators. S/U grading.

410. Statistical Methods in Clinical Trials. (4) Lecture, three hours; discussion, two hours. Requisites: courses 100A, 100B. Design of studies in animals to assess antitumor response; randomization, historical controls, p-values, size of study, and stratification in human experimentation; various types of control and prognostic factors, survivorship studies, and design of prognostic studies; organization of clinical trials—administration, comparability, protocols, clinical standards, data collection and management. S/U (optional only for nonmajors) or letter grading.


413. Introduction to Pharmaceutical Statistics. (4) Lecture, three hours; discussion, one hour. Requisites: courses 100A, 100B. Exploration of various types of statistical techniques used in pharmaceutical and related industries. Topics include bioassay and other assay techniques (e.g., ELISAs and FACS analysis), quality control techniques, and pharmacokinetic and pharmacodynamic modeling. S/U or letter grading.

414. Principles of Sampling. (4) Lecture, three hours; discussion, one hour. Requisite: course 100B. Epidemiology 100. Statistical aspects of design and implementation of sample survey. Techniques for analysis of data, including estimates and standard errors. Avoiding improper use of survey data. Letter grading.

498. Teacher Preparation in Biostatistics. (2) Seminar, two hours. Preparation: 18 units of cognate courses in area of specialization. May not be applied toward master's degree minimum total course requirement. May be repeated for credit. S/U grading.

595. Effective Integration of Biostatistical Concepts in Public Health Research. (4) Tutorial, to be arranged. Enforced requisites: courses 110A, 110B, 400, 402A. Students meet weekly with their adviser and also work independently on their proposed projects. Course fosters abilities of students to select relevant design and analysis techniques, synthesize knowledge, and apply insights to address public health problems. Oral examination and written report describing how students have used biostatistical methods to assess data from public health study required. May be repeated for credit. S/U grading.

596. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. Limited to graduate students. Individual guided studies under direct faculty supervision. Only 4 units may be applied toward MPH and MS minimum course requirements. May be repeated for credit. Letter grading.

597. Preparation for Master's Comprehensive or Doctoral Qualifying Examinations. (2 to 12) Tutorial, to be arranged. Limited to graduate students. May not be applied toward any degree course requirements. May be repeated for credit. S/U grading.

599. Doctoral Dissertation Research. (2 to 12) Tutorial, to be arranged. May not be applied toward any degree course requirements. May be repeated for credit. S/U grading.

Overview

Issues of brain and behavioral health have become central to the understanding of human development, well-being, and productivity. Sometimes called translational science, the focus on evidence-based prevention and treatment programs at multiple levels—individual, family, school, community—has become a primary focus of the behavioral health fields. Key features of the approach include an understanding of the basic science of the brain and behavioral issues at hand, their interaction with contextual factors, the development of programs and policies derived directly from that science, and the rigorous evaluation of those programs and policies.

Undergraduate Minor

Brain and Behavioral Health Minor

The minor offers students the opportunity to learn about how to apply scientific advances to the promotion of brain and behavioral health across the lifespan. The Brain and Behavioral Health minor is intended to supplement the education of undergraduate students enrolled in the Cognitive Science, Human Biology and Society, Neuroscience, Psychobiology, and Psychology majors. As a minor, the program is able to take advantage of the core knowledge gained by students from their majors and focus on how to use that knowledge to develop programs and policies focusing on brain and behavioral health. The program offers students depth in a topic (e.g., autism, dementia) that is required when trying to solve a pressing problem.

Admission

To enter the minor students must have an overall grade-point average of 2.7 or better, have completed Psychiatry 79, and submit an application demonstrating interest in the application of science to improving brain and behavioral health by the end of the fall quarter of the student’s third year.

The Minor

Required Lower-Division Courses (5 units): Psychiatry 79.

Required Upper-Division Courses (24 units): (1) Psychiatry 174 or 176; (2) three upper-division electives selected from Neuroscience CM123, C177, M187, 192OX, Physiological Sciences 140, Psychiatry 174 or 176 (whichever course was not applied above), 175, M182, Psycholology M107, 127B, 129C, 152, 161, 164, Society and Genetics 102, 141, M144; (3) two capstone courses: Psychiatry 177A, 177B.

Policies

Each course must be completed with a grade of C or better.

A minimum of 20 units applied toward the minor requirements must be in addition to units

BRAIN AND BEHAVIORAL HEALTH

Interdisciplinary Minor

College of Letters and Science

B7-357 Semel Institute

Box 951759

Los Angeles, CA 90095-1759

Brain and Behavioral Health

310-825-8514

E-mail contact

Andrew J. Fulgini, PhD, Chair

Faculty Committee

Robert M. Bilder, PhD (Psychiatry and Biobehavioral Sciences, Psychology)
Christopher J. Evans, PhD (Psychiatry and Biobehavioral Sciences, Psychology)
Andrew J. Fulgini, PhD (Psychiatry and Biobehavioral Sciences, Psychology)
Adriana Galván, PhD (Psychiatry and Biobehavioral Sciences, Psychology)
Christina G.S. Palmer, PhD (Human Genetics, Psychiatry and Biobehavioral Sciences, Society and Genetics)
Tara S. Peris, PhD (Psychiatry and Biobehavioral Sciences)
applied toward major requirements or another minor. Each minor course must be taken for a letter grade. Successful completion of the minor is indicated on the transcript and diploma.

CHEMICAL AND BIOMOLECULAR ENGINEERING

Faculty Roster

Professors
Jane P. Chang, PhD (William Frederick Seyer Professor of Materials Electrochemistry)  
Panagiotis D. Christofides, PhD (William D. Van Vorst Professor of Chemical Engineering Education)  
Yoram Cohen, PhD  
James F. Davis, PhD  
Vasilios I. Manousiouthakis, PhD  
Harold G. Monbouquette, PhD  
Stanley J. Osher, PhD  
Philippe Sautet, PhD (Levi James Knight, Jr. Term Professor of Excellence)  
Yi Tang, PhD (Ralph M. Parsons Foundation Professor of Chemical Engineering)

Professors Emeriti
Vijay K. Dhir, PhD  
Robert F. Hicks, PhD  
Eldon L. Knuth, PhD  
James C. Liao, PhD  
Yunfeng Lu, PhD  
Selim M. Senkan, PhD  
Vincent L. Vilker, PhD  
A.R. Frank Wazzan, PhD, Dean Emeritus

Associate Professors
Irene A. Chen, PhD  
Yvonne Y. Chen, PhD  
Dante A. Simonetti, PhD

Assistant Professors
Nasim Annabi, PhD  
Carissa N. Eisler, PhD  
Yuzhang Li, PhD  
Carlos G. Morales-Guio, PhD  
Junyoung O. Park, PhD  
Joseph Peterson, PhD  
Samyovana Srivastava, PhD  
Thaiesha A. Wright, PhD

Overview
The Department of Chemical and Biomolecular Engineering conducts undergraduate and graduate programs of teaching and research that focus on the areas of biomolecular engineering, systems engineering, and advanced materials processing and span the general themes of energy/environment and nanotechnology. Aside from the fundamentals of chemical engineering (thermodynamics, transport phenomena, kinetics, reactor engineering and separations), particular emphasis is given to air pollution, biomaterials, bioanotechnology, chemical vapor deposition, environmental modeling, membrane science, metabolic engineering, molecular simulation, plasma processing, pollution prevention, polymer engineering, process systems engineering, protein engineering, semiconductor processing, and synthetic biology.

Students are trained in the fundamental principles of these fields while acquiring sensitivity to society’s needs—a crucial combination needed to address the challenge of continued industrial growth and innovation in an era of economic, environmental, and energy constraints. The undergraduate curriculum leads to a Bachelor of Science (BS) in Chemical Engineering and includes the standard core curriculum, as well as biomedical engineering, biomolecular engineering, environmental engineering, and semiconductor manufacturing engineering options. The department also offers graduate courses and research leading to Master of Science (MS) and Doctor of Philosophy (PhD) degrees. Both graduate and undergraduate programs closely relate teaching and research to important industrial problems.

Undergraduate Major
Chemical Engineering BS

The Chemical Engineering curricula offer a high-quality, professionally oriented education in modern chemical engineering. The biomedical engineering, biomolecular engineering, environmental engineering, and semiconductor manufacturing engineering options provide students with an opportunity for exposure to a subfield of chemical and biomolecular engineering. In all cases, balance is sought between engineering science and practice.

The chemical engineering program is accredited by the Engineering Accreditation Commission of ABET.

Capstone Major

The Chemical Engineering major is a designated capstone major. The capstone project requires students to first work individually and then learn how to integrate chemical engineering fundamentals taught in prior required courses; they then work in groups to produce a paper design of a realistic chemical process using appropriate software tools. Graduates should be able to design a chemical or biological system, component, or process that meets technical and economical design objectives, with consideration of environmental, social, and ethical issues, as well as sustainable development goals. In addition, they should be able to apply their knowledge of mathematics, physics, chemistry, biology, and chemical and biological engineering to analysis and design of chemical and biochemical processes and products; function on multidisciplinary teams; identify, formulate, and solve complex chemical and biological engineering problems; and communicate effectively, both orally and in writing.

Learning Outcomes
The Chemical Engineering major has the following learning outcomes:

- Application of knowledge of mathematics, physics, chemistry, biology, and chemical and biological engineering, especially to integration of molecular- to macro-scale information into macro-scale analysis and design of chemical and biochemical processes and products
- Design of a chemical or biological system, component, or process that meets technical and economical design objectives with consideration of environmental, social, and ethical issues, as well as sustainable development goals
- Identification, formulation, and solution of complex chemical and biological engineering problems
- Function as a productive member of a multidisciplinary team
- Effective oral and written communication

Requirements

Chemical Engineering Core Option

Preparation for the Major

Required: Chemical Engineering 10; Chemistry and Biochemistry 20A, 20B, 20L, 30A, 30AL, 30B; Civil and Environmental Engineering M20 or Mechanical and Aerospace Engineering M20; Mathematics 31A, 31B, 32A, 32B, 33A, 33B; Physics 1A, 1B, 1C, 4AL.

The Major

Required: Chemical Engineering 45, 100, 101A, 101B, 101C, 102A, 102B, 103, 104A, 104B, 106, 107, 109; three technical breadth courses (12 units) selected from an approved list available in the Office of Academic and Student Affairs; two capstone analysis and design courses (Chemical Engineering 108A, 108B); and two elective courses (8 units) from Chemical Engineering 110, C111, C112, 113, CM114, C115, C116, C118, C119, C121, C125, C128, C135, C140. For information on UC, school, and general education requirements, see the Samueli School section in College and Schools.

Biomedical Engineering Option

Preparation for the Major

Required: Chemical Engineering 10; Chemistry and Biochemistry 20A, 20B, 20L, 30A, 30AL, 30B; Civil and Environmental Engineering M20 or Mechanical and Aerospace Engineering M20; Mathematics 31A, 31B, 32A, 32B, 33A, 33B; Physics 1A, 1B, 1C, 4AL.
The Major
Required: Chemical Engineering 45, 100, 101A, 101B, 101C, 102A, 102B, 103, 104A, 104B, 106, 107, 109, CM145; three technical breadth courses (12 units) selected from an approved list available in the Office of Academic and Student Affairs; two capstone analysis and design courses (Chemical Engineering 108A, 108B); and one biomedical elective course (4 units) from Bioengineering C105, C183, Chemical Engineering C112, Chemistry and Biochemistry C105, 153A, or C159 (another chemical engineering elective may be substituted for one of these with approval of the faculty advisor).

Biomolecular Engineering Option
Preparation for the Major
Required: Chemical Engineering 10; Chemistry and Biochemistry 20A, 20B, 20L, 30A, 30AL, 30B; Civil and Environmental Engineering M20 or Mechanical and Aerospace Engineering M20; Mathematics 31A, 31B, 32A, 32B, 33A, 33B; Physics 1A, 1B, 1C, 4AL.

The Major
Required: Chemical Engineering 45, 100, 101A, 101B, 101C, 102A, 102B, 104A, 104D, 107, 109, C115, C125, CM145; three technical breadth courses (12 units) selected from an approved list available in the Office of Academic and Student Affairs; two capstone analysis and design courses (Chemical Engineering 108A, 108B); and one biomedical elective course (4 units) from Bioengineering C105, C183, Chemical Engineering C112, Chemistry and Biochemistry C105, 153A, or C159 (another chemical engineering elective may be substituted with approval of the faculty advisor).

For information on UC, school, and general education requirements, see the Samueli school section in College and Schools.

Graduate Major
Chemical Engineering MS, PhD Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Chemical Engineering
Lower-Division Courses
2. Technology and Environment. (4)
Lecture, four hours; outside study, eight hours. Natural and anthropogenic flows of materials at global and regional scales. Case studies of natural cycles include global warming (CO2 cycles), stratospheric ozone depletion (chlorine and ozone cycles), and global nitrogen cycles. Flow of materials in industrial economics compared and contrasted with natural flows; presentation of lifecycle methods for evaluating environmental impact of processes and products. P/NP or letter grading.

45. Biophysical Engineering Fundamentals. (4)
Lecture, four hours; discussion, one hour; outside study, seven hours. Recommended requisites: Chemistry 20A, 20B, 30A, 30B. Intended for students who have not taken Life Sciences 2, 3, and Chemistry 153A. Fundamentals of modern biophysical engineering. Topics include structure and function of biomolecules and macromolecules, central dogma of molecular biology, cellular and molecular processes, and energy transfer. Students will be introduced to experimental methods, with strong emphasis on applications in medicine, industry, and bioenergy. Letter grading.

99. Student Research Program. (1 to 2)
Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses
100. Fundamentals of Chemical and Biophysical Engineering. (4)
Lecture, four hours; discussion, one hour; outside study, seven hours. Required requisites: Mathematics 32B (may be taken concurrently), Physics 1A. Introduction to analysis and design of chemical processes. Material and energy balances. Introduction to programming in MATLAB. Letter grading.

101A. Transport Phenomena I. (4)

101B. Transport Phenomena II: Heat Transfer. (4)
Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 101A. Introduction to analysis of heat transfer in chemical, biological, materials, and molecular processes. Fundamentals of thermal energy transport, molecular-level heat transfer in gases, liquids, and solids, forced and free convection, radiation, and engineering analysis of heat transfer in process systems. Letter grading.

101C. Mass Transfer. (4)
Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 101B. Introduction to analysis of mass transfer in systems of interest to chemical engineering practice. Fundamentals of species transport, Fick law of diffusion, diffusion in chemically reacting flows, interphase mass transfer, multicomponent systems. Letter grading.

102A. Thermodynamics I. (4)
Lecture, four hours; discussion, one hour; outside study, seven hours. Introduction to thermodynamics of chemical and biological processes. Work, energy, heat, and first law of thermodynamics. Second law, extremum principles, entropy, and free energy. Ideal and real gases, property evaluation. Thermodynamics of flow systems. Applications of first and second laws in biological processes and living organisms. Letter grading.

102B. Thermodynamics II. (4)

103. Separation Processes. (4)
Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: courses 100, 101B. Application of principles of heat, mass, and momentum transfer to design and operation of separation processes such as distillation, gas absorption, filtration, and reverse osmosis. Letter grading.
104A. Chemical and Biomolecular Engineering Laboratory I. (4) Lecture, two hours; laboratory, six hours; outside study, four hours. Enforced requisite: course 100C. Biocomputers: course 101B. Recommended: course 102B. Investigation of basic transport phenomena in 10 predetermined experiments, collection of data for statistical analysis and individually written technical reports and group presentations. Design and construction of one original experimental study involving transport, separation, or another aspect of chemical and biomolecular engineering. Basic statistical methods: correlation, confidence limits, comparison of two means and of multiple means, single and multiple variable linear regression, and brief introduction to factorial design of experiments. Oral and written technical writing of sections of technical reports and their contents; writing clearly, concisely, and consistently; importance of word choices and punctuation in multicultural environment and of following required formatting. Letter grading.

104B. Chemical and Biomolecular Engineering Laboratory II. (6) Lecture, four hours; laboratory, eight hours; outside study, four hours; other, two hours. Enforced requisites: courses 101C, 103, 104A. Course consists of four experiments in chemical engineering unit operations, each of two weeks duration. Students present their results both written and orally. Written report includes problems on theory, experimental procedures, scaleup and process design, and error analysis. Letter grading.

104C. Semiconductor Processing. (3) Lecture, four hours; outside study, five hours. Enforced requisite: course 101C. Enforced corequisite: course 104A. Basic engineering principles of semiconductor unit operations, including fabrication and characterization of semiconductor devices. Investigation of processing steps used in making CMOS devices, including wafer cleaning, oxidation, diffusion, lithography, chemical vapor deposition, plasma etching, metallization, and statistical design of experiments and error analysis. Presentation of student results in both written and oral form. Letter grading.

104CL. Semiconductor Processing Laboratory. (3) Laboratory, four hours; outside study, five hours. Enforced requisite: courses 101C, 102B. Integration of molecular and engineering techniques in modern biotechnology. Cloning of protein-coding gene into plasmid, transformation of construct into E. coli, production of gene product in bioreactor, downstream processing of bioreactor broth to purify recombinant protein, and characterization of purified protein. Letter grading.


107. Process Dynamics and Control. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: courses 101C, 103 (or C125), 106 (or C115). Principles of dynamics modeling and control of chemical engineering systems. Chemical process control elements. Design and applications of chemical process computer control. Letter grading.

108A. Process Economics and Analysis. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: courses 103 (or C125), 104A, 106 (or C115). Integration of chemical engineering fundamentals such as transport phenomena, thermodynamics, separation operations, and reaction engineering and simple economic principles for purpose of designing chemical processes and evaluating alternatives. Letter grading.

108B. Chemical Process Computer-Aided Design and Analysis. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: courses 103 (or C125), 106 (or C115), 108A, Civil and Environmental Engineering M20 (or Mechanical and Aerospace Engineering M20) or Mechanical and Aerospace Engineering I (or Mechanical and Aerospace Engineering I). Application of some mathematical and computing tools to chemical engineering design problems; use of simulation programs as automated method of performing steady state material and energy balance calculations. Letter grading.

109. Numerical and Mathematical Methods in Chemical and Biological Engineering. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 101C. Introduction to factorial design of experiments and error analysis. Numerical methods for computation of solution of systems of equations and optimization of systems, ordinary differential equations, and partial equations. Chemical and biochemical engineering examples used throughout to illustrate application of these methods (use of computing environment) to write programs based on numerical methods to solve various problems arising in chemical engineering. Letter grading.

110. Introduction to Engineering Thermodynamics. (4) Lecture, four hours; outside study, eight hours. Enforced requisite: course 102B. Principles and engineering applications of statistical and phenomenological thermodynamics. Determination of partition function in terms of simple molecular models and spectroscopic data; nonideal gases; phase transitions and adsorption; nonequilibrium thermodynamics and coupled transport processes. Letter grading.

111. C109. Polymers and Low-Temperature Processes. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: courses 102A, 102B (or Materials Science 130). Fundamentals of cryogenic science pertaining to industrial low-temperature processes. Basic approaches to analysis of cryofluids and envelopes needed for operation of cryogenic systems; low-temperature behavior of matter, optimization of cryosystems and other special conditions. Concurrently scheduled with course C211. Letter grading.

C112. Polymer Processes. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: course CM 209A. Formation of polymers, criteria for selecting reaction scheme, polymerization techniques, polymer characterization. Mechanical properties. Rheology of macromolecules, polymers in concentrated solutions, interfacial rheology of polymeric systems. Polymers in biomedical applications and in microelectronics. Concurrently scheduled with course C212. Letter grading.

C113. Air Pollution Engineering. (4) Lecture, four hours; preparation, two hours; outside study, six hours. Enforced requisites: courses 101C, 102B. Integrated approach to air pollution, including concentrations of atmospheric pollutants, air pollution standards, air pollution sources and control technology, and relationships of air quality to emission sources. Links air pollution to multimedia environmental assessment. Letter grading.

CM114. Electrochemical Processes. (4) Same as Materials Science CM 114. Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: course 102B, Mechanical and Aerospace Engineering 105A (or Materials Science 130). Fundamentals of electrochemistry and engineering applications to industrial electrochemical processes. Primary emphasis on fundamental approach to analyze electrochemical processes. Specific topics include electrochemical reactions, electrolysis, solid-state electrochemistry, electrocatalysis, solid-state batteries, and chemical and bioelectrochemistry. May be concurrently scheduled with course CM214. Letter grading.

C115. Biochemical Reaction Engineering. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 101C. Use of previously learned concepts of biophysical chemistry, thermodynamics, transport phenomena, and reaction kinetics to develop tools needed for technical design and economic analysis of biological reactors. May be concurrently scheduled with course CM215. Letter grading.

C116. Surface and Interface Engineering. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Introduction to the fundamental principles of surface engineering materials, particularly catalytic surfaces and thin films for solid-state electronic devices. Topics include classification of crystals and surfaces, analysis of structure and composition of crystals and their surfaces and interfaces. Examination of engineering applications, including catalytic surfaces, interfaces in microelectronics, and solid-state laser. May be concurrently scheduled with course C218. Letter grading.

C118. Multimedia Environmental Assessment. (4) Lecture, four hours; discussion, one hour; preparation, two hours; outside study, five hours. Recommended requisites: courses 101C, 102B. Pollutant sources, emissions, and purifying materials like whole cells, enzymes, food additives, or pharmaceuticals that are products of biotechnology, viruses, and vaccines. Covers case studies of viral diseases and vaccines. Letter grading.

C121. Membrane Science and Technology. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: courses 101A, 101C, 103. Fundamentals of membrane science and technology, with emphasis on separations at micro, nanoscale, and molecular/angstrom scale with membranes. Relationship between structure/morphology of dense and porous membranes and their separation characteristics. Use of nanotechnology for design of selective membranes and models of transport (flux and selectivity). Examples provided from various fields/applications, including biotechnology, microelectronics, chemical processes, sensors, and biomedical devices. Concurrently scheduled with course C221. Letter grading.


C125. Bioseparations and Bioprocess Engineering. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced corequisite: course 101A, 101C. Introduction to design and synthesis of biomaterials and economic factors used to design processes for isolating and purifying materials like whole cells, enzymes, food additives, or pharmaceuticals that are products of biotechnology. Concurrently scheduled with course CM225. Letter grading.

C126. Viruses and Biotechnology. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course CM145. Introduction of virology and their varied roles in biotechnology, from utilization of viral enzymes to biotechnologies used to combat viral infectious diseases. Basic concepts of virology. Focus on use of viruses, including bacteriophages, as tools in biotechnology. Examples include bacteriophage display, virus-based nanomaterials, and viral vectors for gene delivery, and vaccines. Covers case studies of viral diseases and biotechnological strategies for diagnosis, prevention,
and treatments. Examples include human immunodeficiency virus and coronaviruses. Students conduct literature searches and write paper on relevant topic of their choice. Concurrently scheduled with course C226. Letter grading.

C217. Synthetic Biology for Biofuels. (4) (Same as Chemistry CM217.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requires: Chemistry 102A, Bioengineering M153, and an understanding of molecular biology. Use of synthetic biology to design microorganisms for energy applications. Concurrently scheduled with course CM227. Letter grading.

C228. Fundamentals of Aerosol Technology. (4) Lecture, four hours; discussion, one hour; outside study, eight hours. Introduction to control of distributed parameter systems with applications to gas cleaning, commercial production, and modern battery technology. Letter grading.

C210. Advanced Chemical Reaction Engineering. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: course 102B. Application of thermodynamics, kinetics, and reactor design to industrial separation processes, gas cleaning, and modern battery technology. Letter grading.

C215. Biochemical Reaction Engineering. (4) (Same as Bioengineering M215.) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: course 102B. Use of microreactors to test novel solid surfaces, electrodopositive, electroless deposition, electrochemistry, fuel cells, aqueous and non-aqueous batteries, solid-state electrosynthesis. May be concurrently scheduled with course CM114. Letter grading.

C216. Surface and Interface Engineering. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Introduction to surfaces and interfaces of engineering materials, particularly catalytic surface and thin films for solid-state electronic devices. Topics include classification of crystals and surfaces, analysis of structure and composition of crystals and their surfaces, and modern surface analysis. Topics include a variety of special methods and current literature in field. May be repeated once for credit with topic or instructor change. Letter grading.

Graduate Courses

200. Advanced Engineering Thermodynamics. (4) Lecture, four hours; discussion, one hour; outside study, eight hours. Enforced requisite: course 102B. Phenomenological and statistical thermodynamics of chemical and physical systems with engineering applications. Presentation of role of atomic and molecular spectra and intermolecular forces in interpretation of thermodynamic properties of gases, liquids, solids, and plasmas. Letter grading.

201. Methods of Molecular Simulation. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: course 200 or Chemistry C223A or Physics 215A. Modern simulation techniques for classical molecular systems. Monte Carlo and molecular dynamics in various ensembles. Applications to liquids, solids, and polymers. Letter grading.

210. Advanced Chemical Reaction Engineering. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: courses 101C, 106. Principles of chemical reactor analysis and design emphasizing on simultaneous effects of chemical reaction and mass transfer on noncatalytic and catalytic reactions in fixed and fluidized beds. Letter grading.

211. Cryogenics and Low-Temperature Processes. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Fundamentals of cryogenics and cryogenic engineering science pertaining to industrial low-temperature processes. Basic approaches to analysis of cryogenic systems. Emphasis on power generation of cryogenic systems; low-temperature behavior of matter, optimization of cryosystems and other special conditions. Concurrently scheduled with course C111. Letter grading.

C212. Polymer Processes. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: course 101A. Chemistry 30A. Formation of polymers, theories for selecting reaction scheme, polymerization techniques, and polymer characteristics. Mechanical properties. Rheology of macromolecules, polymer process engineering. Diffusion in polymeric systems. Polymers in biomedical applications and in microelectronics. Concurrently scheduled with course C112. Letter grading.

C214. Electrochemical Processes. (4) (Same as Materials Science CM214.) Lecture, four hours; discussion, one hour; outside study, eight hours. Requisites: course 102B, Chemical and Aerospace Engineering 105A (or Materials Science 130). Fundamentals of electrochemistry and engineering applications to industrial electrochemical processes. Primary emphasis on fundamental approach to analyze electrochemical processes. Specific topics include electrochemical reactions, surface processes, electrochemical deposition, electrolysis, fuel cells, solid-state and aqueous batteries, solid-state electrochemistry. May be concurrently scheduled with course CM114. Letter grading.

215. Biochemical Reaction Engineering. (4) (Same as Bioengineering M215.) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: course 102B. Use of microreactors to test novel solid surfaces, electrodopositive, electroless deposition, electrochemistry, fuel cells, aqueous and non-aqueous batteries, solid-state electrosynthesis. May be concurrently scheduled with course CM114. Letter grading.

216. Surface and Interface Engineering. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Introduction to surfaces and interfaces of engineering materials, particularly catalytic surface and thin films for solid-state electronic devices. Topics include classification of crystals and surfaces, analysis of structure and composition of crystals and their surfaces, and modern surface analysis. Topics include a variety of special methods and current literature in field. May be repeated once for credit with topic or instructor change. Letter grading.


220. Advanced Mass Transfer. (4) Lecture, four hours; outside study, eight hours. Requisite: course 101C. Advanced treatment of mass transfer, with applications to industrial separation processes, gas cleaning, pulmonary bioengineering, controlled release systems, and reactor design; molecular and constitutive theories of diffusion, interfacial transport, membrane transport, convective mass transfer, concentration boundary layers, turbulent transport. Letter grading.

221. Membrane Science and Technology. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: courses 101A, 101B. Fundamentals of membrane science and technology, with emphasis on separations at micro, nano, and molecular/angstrom scale with membranes. Relationship between structure/morphology of dense and porous membranes and their separation characteristics. Use of nanotechnology for design of selective membranes and models of membrane transport (flux and selectivity). Examples provided from various applications, including microelectronics, chemical processes, sensors, and biomedical devices. Concurrently scheduled with course C121. Letter grading.

222. Stochastic Modeling and Simulation of Chemical Processes. (4) Lecture, four hours; discussion, one hour; outside study, eight hours. Introduction, definition, rationale of stochastic processes. Distribution, moments, correlation. Mean square calculus. Wiener process, white


223. Design for Environment. (4) Lecture, four hours; outside study, eight hours. Limited to graduate chemical engineering, materials science and engineering, or Master of Engineering program students. Design of products for meeting environmental objectives; life cycle inventories; lifecycle impact assessment; design for energy efficiency, design for waste minimization, computer-aided design tools, materials selection methods. Letter grading.

224. Cell Material Interactions. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 45. Introduction to design and synthesis of regenerative medicine devices for supporting and promoting tissue regeneration. Use of stem cells in tissue engineering. Applications of DNA and siRNA delivery as therapeutics and to facilitate cellular matrix analogs using biological and engineering methods. Letter grading.

225. Bioseparations and Bioprocess Engineering. (4) (Same as Bioengineering M225.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 101C. Separation strategies, unit operations, and economic factors used to design processes for isolating and purifying materials like whole cells, enzymes, food additives, or pharmaceuticals. Applications to design of bioreactors. Concurrently scheduled with course C125. Letter grading.

226. Viruses and Biotechnology. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course C145. Introduction of viruses and their roles in biotechnology, from utilization of viral enzymes to biotechnological use of recombinant viruses. Students conduct literature searches and write paper on relevant topic of their choice. Concurrently scheduled with course C126. Letter grading.

CM227. Synthetic Biology for Biofuels. (4) (Same as Chemistry CM227.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: Chemistry 153A. Engineering microorganisms for complex phenotype is common goal of metabolic engineering and synthetic biology. Production of advanced biofuels involves designing and constructing novel metabolic networks in cells. Such efforts require profound understanding of biochemistry, protein structure, and biologicial regulation and are aided by tools in bioinformatics, systems biology, and molecular biology. Fundamentals of metabolic biochemistry, protein structure and function, and bioinformatics. Use of E. coli for metabolic network design microorganisms for energy applications. Concurrently scheduled with course CM127. S/U or letter grading.

CM228. Hydrogen. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 210C. Technology of particle/gas systems with applications to gas cleaning, commercial production of fine particles, and catalysis. Particle transport and deposition, optical properties, experimental methods, dynamics and control of particle formation processes. Concurrently scheduled with course C140. Letter grading.

CM245. Molecular Biotechnology for Engineers. (4) (Same as Bioengineering CM245.) Lecture, four hours; discussion, one hour; outside study, seven hours. Selected topics in molecular biology that form foundation of biotechnology and genetic engineering today. Topics include recombinant DNA technology, molecular research tools, manipulation of gene expression, directed mutagenesis and protein engineering. DNA-based diagnostics and DNA microarrays, antibody and protein-based diagnostics, genomics and bioinformatics, isolation of human genes, gene therapy, and tissue engineering. Concurrently scheduled with course CM145. Letter grading.


250. Computer-Aided Chemical Process Design. (4) Lecture, four hours; outside study, eight hours. Requisite: course 108B. Application of optimization methods to chemical process design. Computer aids in process engineering; process modeling; systematic flowsheet invention; process synthesis; optimal design and operation of large-scale chemical processing systems. Letter grading.


270R. Advanced Research in Semiconductor Manufacturing. (4) Laboratory, nine hours; outside study, nine hours. Limited to graduate chemical engineering students in MS semiconductor manufacturing option. Supervised research in processing semiconductor devices. Letter grading.

M280A. Linear Dynamic Systems. (4) (Same as Electrical and Computer Engineering M240A and Mechanical and Aerospace Engineering M270A.) Lecture, four hours; outside study, eight hours. Requisite: Electrical and Computer Engineering 141 or Mechanical and Aerospace Engineering 171A. State-space description of linear time-invariant (LTI) and time-variant (LTV) systems. Stability, condition, and controllability, observability, realizability, and minimality. Stabilization designs and state feedback, state space separation principle. Connections with transfer function techniques. Letter grading.
M280C. Optimal Control. (4) (Same as Electrical and Computer Engineering M240C and Mechanical and Aerospace Engineering M270C.) Lecture, four hours; outside study, eight hours. Requisites: Electrical and Computer Engineering 240B or Mechanical and Aerospace Engineering 270B. Applications of variational methods, Pontryagin maximum principle, Hamilton/Jacobi/Bellman equation (dynamic programming) to optimal control of dynamic systems modeled by nonlinear ordinary differential equations. Letter grading.


283C. Analysis and Control of Infinite Dimensional Systems. (4) Lecture, four hours; outside study, eight hours. Requisites: courses M280A, M282A. Designed for graduate students. Introduction to advanced dynamical analysis and controller synthesis methods for nonlinear infinite dimensional systems. Topics include (1) linear operator and stability theory (basic results on Banach and Hilbert spaces, semigroup theory, convergence theory in function spaces), (2) nonlinear model reduction (linear and nonlinear Galerkin method, proper orthogonal decomposition), (3) nonlinear and robust control of nonlinear hyperbolic and parabolic partial differential equations (PDEs), (4) applications to transport-reaction processes. Letter grading.


290. Special Topics. (2 to 4) Seminar, four hours. Requisites for each offering announced in advance by department. Advanced and current study of one or more aspects of chemical engineering, such as chemical process dynamics and control, fuel cells and batteries, membrane transport, advanced chemical engineering analysis, polymers, optimization in chemical process design. May be repeated for credit with topic change. Letter grading.

M297. Seminar: Systems, Dynamics, and Control Topics. (2 to 16) Seminar, two hours; outside study, six hours. Limited to graduate engineering students. Presentations of research topics by leading academic and industrial chemical engineers on development or application of recent technological advances in discipline. May be repeated for credit. S/U grading.

298A-298Z. Research Seminars. (2 to 4 each) Seminar, to be arranged. Requisites for each offering announced in advance by department. Lectures, discussions, student presentations, and projects in areas of current interest. May be repeated for credit. S/U grading.

299. Departmental Seminar. (2) Seminar, two hours. Limited to graduate chemical engineering students. Seminars by leading academic and industrial chemical engineers on development or application of recent technological advances in discipline. May be repeated for credit. S/U grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

495A. Teaching Assistant Training Seminar. (2) Seminar, two hours; outside study, four hours; one-day intensive training at beginning of Fall Quarter. Limited to graduate students interested in teaching. Required of all new teaching assistants. Special seminar on communicating chemical engineering principles, concepts, and methods; teaching assistant preparation, organization, and presentation of material, including use of grading, advising, and rapport with students. S/U grading.

495B. Teaching with Technology for Teaching Assistants. (2) Seminar, two hours; outside study, four hours. Limited to graduate chemical engineering students. Designed for teaching assistants interested in learning more about effective use of technology and ways to incorporate that technology into their classroom for benefit of student learning. S/U grading.

596. Directed Individual or Tutorial Studies. (2 to 8) Tutorial, to be arranged. Limited to graduate chemical engineering students. Petition forms to request enrollment may be obtained from assistant dean, Graduate Studies. Supervised investigation of advanced technical problems. S/U grading.

597A. Preparation for MS Comprehensive Examination. (2 to 12) Tutorial, to be arranged. Limited to graduate chemical engineering students in MS semi-conductor manufacturing option. Reading and preparation for MS comprehensive examination. S/U grading.

597B. Preparation for PhD Preliminary Examinations. (2 to 16) Seminar, to be arranged. Limited to graduate chemical engineering students. Preparation for oral qualifying examination, including preliminary research on dissertation. S/U grading.

598. Research for and Preparation of MS Thesis. (2 to 12) Tutorial, to be arranged. Limited to graduate chemical engineering students. Supervised independent research for MS candidates, including thesis proposal. S/U grading.

599. Research for and Preparation of PhD Dissertation. (2 to 16) Tutorial, to be arranged. Limited to graduate chemical engineering students. Usually taken after students have been advanced to candidacy. S/U grading.

**Chemistry and Biochemistry**

**Chemistry and Biochemistry**

**College of Letters and Science**

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Department e-mail

----------------------- Chair

**Faculty Roster**

**Professors**

Anastassia N. Alexandrova, PhD
Anne M. Andrews, PhD, in Residence
David B. Bensimon, PhD
Guillaume F. Chanfreau, PhD
Catherine F. Clarke, PhD
Steven G. Clarke, PhD
Robert T. Clubb, PhD
Stuart J. Conway, PhD
Timothy J. Deming, PhD
Paula L. Diaconescu, PhD

Abigail G. Doyle, PhD (Saul Winstein Professor of Organic Chemistry)
Xiaofeng Duan, PhD
David S. Eisenberg, DPhil (Paul D. Boyer Professor of Molecular Biology and Biochemistry)
Juli F. Feigon, PhD
Miguel A. Garcia-Garibay, PhD
Neil K. Garg, PhD (Kenneth N. Trueblood Endowed Professor of Chemistry and Biochemistry)
William M. Gelbart, PhD
James K. Gimzewski, PhD
Patrick G. Harran, PhD (D.J. and J.M. Cram Professor of Organic Chemistry)
Michael E. Jung, PhD (Walter and Shirley Wang Endowed Professor of Medicinal Drug Discovery)
Richard B. Kaner, PhD
Carla M. Koehler, PhD
Ohyun Kwon, PhD
Joseph A. Loo, PhD
Thomas G. Mason, PhD
Heather D. Maynard, PhD
Daniel Neuhauser, PhD
Margot E. Quinlan, PhD
Yves F. Rubin, PhD
Philippe Sautet, PhD (Levi James Knight, Jr. Term Professor of Excellence)
Benjamin J. Schwartz, PhD
Hannah S. Sha faithful, PhD
Yi Tang, PhD (Ralph M. Parsons Foundation Professor of Chemical Engineering)
Sarah H. Tolbert, PhD
Jorge Z. Torres, PhD
Paul S. Weiss, PhD (Presidential Professor of Chemistry)
Roy Wollman, PhD
Gerard C.L. Wong, PhD

**Professors Emeriti**

Frank A.L. Anet, PhD
Daniel E. Atkinson, PhD
Delroy A. Baugh, PhD
Kyle D. Bayes, PhD
James U. Bowie, PhD
Robijn F. Bruinsma, PhD
Albert J. Courcy, PhD
Richard E. Dickerson, PhD
Mostafa A. El-Sayed, PhD
Peter M. Felker, PhD
Robin L. Garrell, PhD
James W. Gober, PhD
Jay D. Graila, PhD
E. Russell Hardwick, PhD
Kendall N. Houk, PhD (Saul Winstein Professor Emeritus of Organic Chemistry)
Wayne L. Hubbell, PhD (Jules Stein Professor Emeritus of Ophthalmology)
Charles M. Knobler, PhD
Christopher J. Lee, PhD
Raphael D. Levine, PhD
Harold G. Martinson, PhD
Craig A. Meric, PhD
Emil Reiser, PhD
Jean-Pierre Stoddart, PhD (Nobel laureate)
Charles E. Strouse, PhD
Joan S. Valentine, PhD
Richard L. Weiss, PhD (Presidential Professor Emeritus of Chemistry)
Undergraduate Study

The department offers four majors: Chemistry (with concentrations in chemistry and physical chemistry), Biochemistry, General Chemistry, and Chemistry/Materials Science. The Chemistry and Biochemistry majors are designed to prepare students for graduate studies in each field, for entry into professional schools in the health sciences, and for careers in industries and businesses that depend on chemically and biochemically based technology. The General Chemistry major is intended for students who wish to acquire considerable chemical background in preparation for careers outside chemistry. The Chemistry/Materials Science major provides appropriate preparation for graduate studies in fields that emphasize research involving chemistry, engineering, and applied science.

Each course used to fulfill any of the requirements for any of the departmental majors must be taken for a letter grade. Seminar courses, individual study courses, and research courses (e.g., 194, 199) may not be applied toward the requirements for the majors.

Requirements for the majors are outlined below. For additional information, contact the Undergraduate Office, 4006 Young Hall.

Undergraduate Policies

Advanced Placement in Chemistry

Students who have taken the Advanced Placement (AP) Chemistry Examination and obtained a score of 4 or 5 receive 8 units of chemistry credit and may petition for chemistry and biochemistry equivalency, or may take course 20A at UCLA. If students received a score of 3 on the AP Chemistry Examination, they receive 8 units of chemistry credit but no course equivalency.

Credit Limitations

Students may not take or repeat a chemistry or biochemistry course for credit if it is a requisite for a more advanced course for which they already have credit. This applies in particular to the repetition of courses (e.g., if students wish to repeat Chemistry and Biochemistry 20A, they must do so before completing course 20B).

Undergraduate Majors

Chemistry BS

The Chemistry major is for students who intend to pursue a career in chemistry.

Learning Outcomes

The Chemistry major has the following learning outcomes:

- Demonstrated broad mastery of fundamental chemical knowledge, in-depth problem solving, critical thinking, and analytical reasoning in analytical, inorganic, organic, and physical chemistry, and in research
- Use of computers in data acquisition and processing
- Use of software tools for exploration and investigation of chemistry principles and models
- Understanding of the role of chemistry in addressing contemporary societal and global issues
- Performance of basic laboratory techniques, description of working principles, and knowledge of how to operate modern chemical instrumentation
- Use of chemical information to search chemical safety databases
- Conduct experimental work and handle all chemicals in a safe manner following OSHA-approved regulations and procedures
- Work effectively in groups and teams of diverse peers to solve scientific problems
- Search and access current and prior research
- Communication of chemical knowledge and experimental results through written reports and oral presentations

Entry to the Major

Admission

Students entering UCLA directly from high school who declare the Chemistry major at the time of application are automatically admitted to the major.

UCLA students who wish to enter the major must have a minimum grade of C- in each of the preparation for the major courses completed and a combined grade-point average of at least 2.0 in those courses. Grades in any completed courses for the major must also average at least 2.0.

Transfer Students

Transfer applicants to the Chemistry major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of general chemistry with laboratory for majors, one and one half years of calculus, and either one year of calculus-based physics with laboratory or one year of organic chemistry for majors. Chemistry majors should have completed the equivalent of Mathematics 32B.

Entering transfer students who have successfully completed a year course (including laboratory) in general college chemistry intended for science and engineering students should enter course 30A. Transfer students should contact the Undergraduate Office, 4006 Young Hall, for assistance with the articulation of transfer coursework.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Chemistry Concentration

Preparation for the Major

Required: Chemistry and Biochemistry 20A (or 20AH), 20B (or 20BH), 20L, 30A, 30AL, 30B, 30BL, 30C, 30CL; Mathematics 31A, 31B, 32A,
32B, 33A (33B highly recommended); Physics 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), 4BL.

The Major

Required: Chemistry and Biochemistry 110A, 110B, 113A, 114 (or 114H), either 136 or 144, 153A, 153L, 171, C172, and two other upper-division or graduate courses in the department, including at least one additional laboratory course from 136, 144, 154, C174, 184, 185.

Physical Chemistry Concentration

The physical chemistry concentration is designed primarily for students who are interested in attending graduate school in physical chemistry/physics or related areas.

Preparation for the Major

Required: Chemistry and Biochemistry 20A (or 20AH), 20B (or 20BH), 20L, 30A, 30AL, 30B, 30BL; Mathematics 31A, 31B, 32A, 32B, 33A, 33B; Physics 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), 4BL.

The Major

Required: Chemistry and Biochemistry 110A, 110B, 113A, 114 (or 114H), 153A, 171, C172; one additional upper-division chemistry, electrical engineering, or physics laboratory course; and three elective upper-division or graduate courses approved by the physical chemistry adviser. Refer to the Undergraduate Office website for a list of approved electives.

By the junior year, students are strongly encouraged to join a research group within the physical chemistry division to obtain firsthand experience with state-of-the-art physical chemistry research.

Honors Program

The core of the program consists of at least one approved undergraduate seminar course from Chemistry and Biochemistry 193A or 193B and three research courses (12 units minimum) from 196A, 196B, or 199, culminating in a thesis.

Computing Specialization

Majors may select a specialization in Computing by (1) completing all the requirements for a bachelor’s degree in the specified major, (2) completing Program in Computing 10A, 10B, and one course from 10C, 15, or 20A, and (3) completing two computational chemistry courses from Chemistry and Biochemistry C113B, C126A, C145, CM160A.

Students with the Chemistry Concentration are required to complete Chemistry and Biochemistry C113B and one computational chemistry course from Chemistry and Biochemistry 125B, C126A, C145, CM160A, CM160B.

Biochemistry BS

The Biochemistry major is for students preparing for careers in biochemistry or other fields requiring extensive preparation in both chemistry and biology.

Learning Outcomes

The Biochemistry major has the following learning outcomes:

• Understanding of chemical structures, bonding, and conformational properties of biological molecules
• Understanding of higher-level organization of cellular components, rules of subcellular organelles, and compartmentalization
• Understanding of mechanisms and energetics of biochemical reactions and the basis for enzymatic catalysis, including the roles of organic cofactors and metals in such processes
• Understanding of ways that cellular events are energetically coupled in key processes
• Understanding of regulatory and response mechanisms that operate in biological systems to achieve homeostasis and conduct signaling within and between cells
• Understanding of the basis for molecular evolution and ways that genetic information is encoded and transmitted in biology
• Understanding of the roles of DNA and protein sequence information in inferring biological function and common ancestry
• Familiarity with laboratory methods for purifying, identifying, and characterizing biomolecules, including protein and nucleic acids
• Familiarity with assays for activity and binding
• Familiarity with basic laboratory methods for DNA manipulation
• Understanding of the roles of hypotheses and models in investigating scientific ideas
• Understanding of the critical importance of controls in interpreting experimental data

Admission

Students entering UCLA directly from high school who declare the Biochemistry major at the time of application are automatically admitted to that major.

UCLA students who wish to enter the major must have a minimum grade of C- in each of the preparation for the major courses completed and a combined grade-point average of at least 2.0 in those courses. Grades in any completed courses for the major must also average at least 2.0.

Transfer Students

Transfer applicants to the Biochemistry major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of general chemistry with laboratory for majors, one and one half years of calculus, and either one year of calculus-based physics with laboratory or one year of organic chemistry for majors. Biochemistry majors must also complete courses equivalent to Life Sciences 7A, 7B, and 7C.

Entering transfer students who have successfully completed a year course (including laboratory) in general college chemistry intended for science and engineering students should enter course 30A. Transfer students should contact the Undergraduate Office, 4006 Young Hall, for assistance with the articulation of transfer coursework.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major

Required: Chemistry and Biochemistry 14A (or 14AE) and 14B (or 14BE), or 20A (or 20AH) and 20B (or 20BH), 20L, 30A, 30AL, 30B, 30BL, 30C; Life Sciences 7A, 7B, 7C, and 23L; Mathematics 31A, 31B, 32A (33A strongly recommended); Physics 1A, 1B, and 1C (or 1AH, 1BH, and 1CH) and 4BL, or 5A, 5B, and 5C.
biology, Immunology, and Molecular Genetics 101 highly recommended).

Honors Program
The core of the program consists of at least one approved undergraduate seminar course from Chemistry and Biochemistry 193A or 193B and three research courses (12 units minimum) from 196A, 196B, or 198, culminating in a thesis.

Computing Specialization
Majors may select a specialization in Computing by (1) satisfying all the requirements for a bachelor’s degree in the specified major, (2) completing Program in Computing 10A, 10B, and one course from 10C, 15, or 20A, and (3) completing two computational chemistry courses from Chemistry and Biochemistry C126A, C145, CM160A.

Policies
The Major
Refer to the Undergraduate Office website for a list of approved electives.

Honors Program
Admission
The honors program provides exceptional majors with the opportunity to do research culminating in an honors thesis. Junior and senior majors who have completed all university-level coursework, including all preparation courses and requirements for the major, with an overall grade-point average of 3.0 or better and a 3.5 GPA or better in the required major courses, may apply for admission. Students must have the sponsorship of an approved faculty adviser. For additional information and application forms, students should contact the Undergraduate Advising Office, 4006 Young Hall, early in their educational planning. Completed applications must be submitted at least two weeks prior to the term in which students plan to begin the honors program.

Requirements
To qualify for graduation with departmental honors, students must satisfactorily complete all requirements for the honors program and the major and obtain a cumulative grade-point average of 3.5 or better in coursework required for the major. On recommendation of the faculty sponsor, and with the approval of the thesis by the departmental honors committee, students are awarded no honors, honors, or highest honors.

Students who have a grade-point average of 3.6 or better, both overall and in the major, and demonstrated exceptional accomplishment on the research thesis are awarded highest honors at the discretion of the departmental honors committee.

Computing Specialization
Courses need to be completed with a combined grade-point average of at least 2.0. Students must petition for admission to the program and are advised to do so after they complete Program in Computing 10B (petitions should be filed in the Undergraduate Office). Students graduate with a bachelor’s degree in their major and a specialization in Computing.

General Chemistry BS
The General Chemistry major is for students who wish to acquire considerable chemical background in preparation for careers in secondary school chemistry teaching. The major may be appropriate for some students who plan to enter other chemistry-related careers that involve teaching chemistry to nonchemists. This major cannot be taken as part of a double major or with the Science Education minor.

Learning Outcomes
The General Chemistry major has the following learning outcomes:

- Demonstrated mastery of fundamental chemical knowledge in analytical, inorganic, organic, physical chemistry, and biochemistry through in-depth problem solving, critical thinking, and analytical reasoning
- Effective communication of chemical knowledge through written materials, oral presentations, and teaching in a variety of settings
- Use of information resources for exploration and investigation of chemistry principles and models
- Understanding of the role of chemistry in addressing contemporary societal and global issues
- Ability to perform and teach basic laboratory procedures and techniques involving the synthesis of molecules
- Ability to perform and teach the measurement of chemical properties, structures, and phenomena
- Knowledge of how to handle chemicals in a safe manner following OSHA-approved regulations and procedures
- Knowledge of how to use information resources to search and access safety databases

Entry to the Major
Transfer Students
Transfer applicants to the General Chemistry major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of general chemistry with laboratory for majors, one and one half years of calculus, and either one year of calculus-based physics with laboratory or one year of organic chemistry for majors.

Entering transfer students who have successfully completed a year course (including laboratory) in general college chemistry intended for science and engineering students should enter course 30A. Transfer students should contact the Undergraduate Office, 4006 Young Hall, for assistance with the articulation of transfer coursework.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Chemistry and Biochemistry / 281

Policies
Students must declare the major before reaching 135 units.

Requirements
Preparation for the Major
Required: Chemistry and Biochemistry 20A (or 20AH), 20B (or 20BH), 20L, 30A, 30AL, 30B, 30BL, 30C, 30CL; Life Sciences 7A; Mathematics 31A, 31B, 32A, 33A; Physics 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), and 4BL (or 5A, 5B, and 5C).

The Major
Required: Chemistry and Biochemistry 110A, 153A, 153L, 171, and 192A or 192B; three additional upper-division courses in the department (at least one must be a laboratory course); one course from Atmospheric and Oceanic Sciences 101, 102, 103, 104, Earth, Planetary, and Space Sciences 101, 113; three courses from Education M102, 105B, 106A, 107A, 107B, M111, 126, 127, M131A, 132; one course from Environmental Health Sciences C152D, C164, Science Education 100XR

Honors Program
The core of the program consists of at least one approved undergraduate seminar course from Chemistry and Biochemistry 193A or 193B and three research courses (12 units minimum) from 196A, 196B, or 198, culminating in a thesis.

Computing Specialization
Majors may select a specialization in Computing by (1) satisfying all the requirements for a bachelor’s degree in the specified major, (2) completing Program in Computing 10A, 10B, and one course from 10C, 15, or 20A, and (3) completing two computational chemistry courses from Chemistry and Biochemistry C126A, C145, CM160A.

Policies
Preparation for the Major
Students must complete the preparation courses with at least a 2.0 grade-point average.

The Major
A 2.0 grade-point average is required in all upper-division courses in the department.

Honors Program
Admission
The honors program provides exceptional majors with the opportunity to do research culminating in an honors thesis. Junior and senior majors who have completed all university-level coursework, including all preparation courses and requirements for the major, with an overall grade-point average of 3.0 or better and a 3.5 GPA or better in the required major courses, may apply for admission. Students must have the sponsorship of an approved faculty adviser.

For additional information and application forms, students should contact the Undergraduate Advising Office, 4006 Young Hall, early in
their educational planning. Completed applications must be submitted at least two weeks prior to the term in which students plan to begin the honors program.

Requirements
To qualify for graduation with departmental honors, students must satisfactorily complete all requirements for the honors program and the major and obtain a cumulative grade-point average of 3.5 or better in coursework required for the major. On recommendation of the faculty sponsor, and with the approval of the thesis by the departmental honors committee, students are awarded no honors, honors, or high-est honors.

Students who have a grade-point average of 3.6 or better, both overall and in the major, and demonstrated exceptional accomplishment on the research thesis are awarded highest honors at the discretion of the departmental honors committee.

Computing Specialization
Courses need to be completed with a combined grade-point average of at least 2.0. Students must petition for admission to the program and are advised to do so after they complete Program in Computing 10B (petitions should be filed in the Undergraduate Office). Students graduate with a bachelor’s degree in their major and a specialization in Computing.

Chemistry/Materials Science BS
The Chemistry/Materials Science major is designed for students who are interested in chemistry with an emphasis on material properties and provides students the opportunity to gain expertise in both chemistry and the science and engineering in materials such as semiconductors, photonic materials, polymers, biomaterials, ceramics, and nano-scale structures. Students explore the reactivity of such materials in different environments and gain understanding of how chemical compositions affect properties. The major provides appropriate preparation for graduate studies in many fields emphasizing interdisciplinary research, including chemistry, engineering, and applied science.

Learning Outcomes
The Chemistry/Materials Science major has the following learning outcomes:

- Understanding of the foundations of materials chemistry including nanoscience, materials synthesis, and materials processing
- Understanding of different methods for materials characterization, measurement of materials properties, and general structure/function relationships
- Familiarity with laboratory methods for materials chemistry and practical laboratory experience with such methods, including X-ray diffractometry, optical absorption and fluorescence spectroscopies, electrical measurements, and electron and scanning probe microscopies
- Understanding of basic operational principles for a broad range of practical devices (e.g., LEDs, photovoltaics, electrochromics, etc.) from a fundamental materials perspective
- Safely and effectively work in a materials laboratory setting
- Knowledge of how to handle chemicals in a safe manner following OSHA-approved regulations and procedures
- Knowledge of how to use information resources to search and access safety databases
- Use of computers, including data acquisition and software tools for calculating and understanding materials properties
- Demonstrated broad mastery of materials chemistry including critical thinking, problem solving, working effectively in diverse groups
- Communication of knowledge through written reports and oral presentations

Entry to the Major
Admission
Students entering UCLA directly from high school who declare the Chemistry/Materials Science major at the time of application are automatically admitted to that major.

UCLA students who wish to enter the major must have a minimum grade of C- in each of the preparation for the major courses completed and a combined grade-point average of at least 2.0 in those courses. Grades in any completed courses for the major must also average at least 2.0.

Transfer Students
Transfer applicants to the Chemistry/Materials Science major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of general chemistry with laboratory for majors, one and one half years of calculus, and either one year of calculus-based physics with laboratory or one year of organic chemistry for majors. Chemistry/Materials Science majors in the organic materials concentration must complete a full year of organic chemistry with laboratory in addition to the other courses listed above.

Entering transfer students who have successfully completed a year course (including laboratory) in general college chemistry intended for science and engineering students should enter course 30A. Transfer students should contact the Undergraduate Office, 4006 Young Hall, for assistance with the articulation of transfer coursework.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements
Preparation for the Major
Required: Chemistry and Biochemistry 20A (or 20AH), 20B (or 20BH), 20L, 30A, 30AL, Mathematics 31A, 31B, 32A, 32B, 33A (33B highly recommended), Physics 1A, 1B, 1C, 4BL.

The Major
Required: Chemistry and Biochemistry 110A, 113A, 171, C172 or C180 or C181, 185, 4 units from 110B, C113B, C172, C174, C175, C176, C180, C181; Materials Science and Engineering 104, 110, 110L, 120, 150 or 160, 131, 8 units from C111, 121, 122, 132, 150, 160, 162, CM180; 7 laboratory units from Chemistry and Biochemistry 114, 184, Materials Science and Engineering 121L, 131L, 161L.

Organic Materials Concentration
Preparation for the Major
Required: Chemistry and Biochemistry 20A (or 20AH), 20B (or 20BH), 20L, 30A, 30AL, 30BL, 30C, 30CL, Mathematics 31A, 31B, 32A, 32B, 33B, Physics 1A, 1B, 1C, 4BL.

The Major
Required: Chemistry and Biochemistry 110A, 113A, 136, 171, 185, 4 units from 110B, C113B, C143A, 144, C172, C174, C175, C176, C180, C181; Materials Science and Engineering 104, 110, 110L, 120, 150, 4 units from C111, 121, 122, 131, 132, 160, 162, CM180; 7 laboratory units from Chemistry and Biochemistry 114, 184, Materials Science and Engineering 121L, 131L, 161L.

Honors Program
The core of the program consists of at least one approved undergraduate seminar course from Chemistry and Biochemistry 193A or 193B and three research courses (12 units minimum) from 196A, 196B, or 199, culminating in a thesis.

Computing Specialization
Majors may select a specialization in Computing by (1) satisfying all the requirements for a bachelor’s degree in the specified major, (2) completing Program in Computing 10A, 10B, and one course from 10C, 15, or 20A, and (3) completing two computational chemistry courses from Chemistry and Biochemistry C126A, C145, CM160A.

Policies
The Major
The following courses may be applied only once toward the major: Chemistry and Biochemistry C172, C180, C181, Materials Science and Engineering 121, 150, 160.

Honors Program
Admission
The honors program provides exceptional majors with the opportunity to do research culminating in an honors thesis. Junior and senior majors who have completed all university-level coursework, including all preparation courses and requirements for the major, with an overall grade-point average of 3.0 or better and a 3.5 GPA or better in the required major courses, may apply for admission. Students must have the sponsorship of an approved faculty adviser. For additional information and application forms, students should contact the Undergraduate Advising Office, 4006 Young Hall, early in their educational planning. Completed applications must be submitted at least two weeks prior to the term in which students plan to begin the honors program.
Requirements
To qualify for graduation with departmental honors, students must satisfactorily complete all requirements for the honors program and the major and obtain a cumulative grade-point average of 3.5 or better in coursework required for the major. On recommendation of the faculty sponsor, and with the approval of the thesis by the departmental honors committee, students are awarded no honors, honors, or high-est honors.
Students who have a grade-point average of 3.6 or better, both overall and in the major, and demonstrated exceptional accomplishment on the research thesis are awarded highest honors at the discretion of the departmental honors committee.

Computing Specialization
Courses need to be completed with a combined grade-point average of at least 2.0. Students must petition for admission to the program and are advised to do so after they complete Program in Computing 10B (petitions should be filed in the Undergraduate Office). Students graduate with a bachelor’s degree in their major and a specialization in Computing.

Graduate Majors
Biochemistry, Molecular and Structural Biology MS, CPhil, PhD
Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Chemistry MS, CPhil, PhD
Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Master of Applied Chemical Sciences
Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Applied Chemical Sciences
Graduate Courses
201A-201B. Modern Analytical Methods in Chemistry. (4–4) Seminar, laboratory, two hours; discussion, two hours. Introduction to and are advanced to ultraviolet, infrared, mass, NMR, and chromatography as they are applied in research. Emphasis on fundamental aspects of instrument theory and applied techniques.
202. Data Management in Science. (3) Seminar, two hours. Offers training for handling data in professional settings. Topics include common practices of searching and managing literature data, calculating and reporting statistical tests, and preparing machine learning approaches in context of scientific research. P/NP or letter grading.
203. Synthetic Methods. (3) Laboratory, two hours; discussion, two hours. Synthesis of organic, inorganic, and organometallic compounds, including air-sensitive and liquid chromatographic and ion exchange methods; spectroscopic characterization and applications. Laboratory projects emphasize advanced characterization tools, teamwork, and problem-solving. Letter grading.
204. Workflow Management. (3) Lecture, three hours. Offers training for workflow management in science. Topics include common practices needed for science communication, developing various forms of written documentation, and navigating major organizational challenges. Letter grading.
205A-205B. Careers in Chemistry, (2–2) Seminar, two hours. Various non-academic speakers give presentations on career paths in areas such as industry, government, research and development, education, law, and health care, and explain skills that are helpful for respective career. S/U (205A) and letter (205B) grading.
206. Medicinal Chemistry and Drug Discovery. (4) Lecture, four hours. Overview of drug discovery process with focus on transition metal catalysis in synthesis of medicines. Introduction to processes by which drugs are discovered, from lead optimization to process development. Introduction of transition metal catalysis, reaction types of importance in modern drug development. Covers fundamental concepts of transition metal catalysis and how catalysis has played transformative role in synthesis of modern medicines. Letter grading.
207. Chemistry of 3D Printing and Additive Manufacturing. (4) Lecture, four hours. Examination of various styles of 3D printing in plastic and metal space. Examination of materials and design constraints of each technology. Exploration of end-use applications for each technology. Cumulates in design project in which students select product for re-design to take advantage of additive manufacturing. Students use basic computer-aided design skills to modify existing product, select print technology and material to generate that object, and then produce report looking at cost/benefit analysis of using 3D printing in chosen application. Letter grading.
208A-208B-208C. Capstone Project. (8–8–8) Tutorial, eight hours. Development of skill set that is directly translatable to various work environments across chemical industry and other chemistry-related jobs outside of academia. Students build critical thinking skills and learn to work in team on applied chemistry projects. Students are advised to collaborate with campus researchers/experts in humanities, social sciences, and business/policy fields to improve their communication and project management skills. Letter grading.
214A. General Chemistry for Life Sciences. (4) Lecture, three hours; discussion, one hour. Preparation: high school chemistry or equivalent background and and three and one half years of high school mathematics. Requirements: completion of Chemistry Diagnostic Test. Letter grading.
596. Directed Individual Research. (2 to 12) Tutorial, to be arranged. Directed study or research by supervising faculty member. Research group meetings, seminars, and discussions. May be repeated for credit. S/U grading.

Chemistry and Biochemistry
Lower-Division Courses
3. Material World. (4) Lecture, three hours; laboratory, two hours. Focus on most important advances made by humans in developing new molecules and materials, and how these discoveries affect our everyday life. These include development of paints, polymers, metals, fuels, drugs, energetic materials, radioactive substances, poisons, and many more. Connections are made between interplay of science, history, arts, and politics in the development of materials. Laboratory sections focus on small-scale experiments relevant to everyday life and complimentary to lecture topics. P/NP or letter grading.
4A. Chemistry and Your Health. (2) Lecture, two hours. Recent health trends and how they are portrayed in pop culture and media. Examination of scientific explanations behind current health crazes and determination if there is validity to these claims. Discussion of chemical principles, such as basic arrow pushing mechanisms, radical oxidations, etc. Investigation of variety of topics including vitamins, health and beauty supplements, sugar alternatives, detox/cleanses, and traditional medicines. Relevant for students who have taken organic chemistry classes and those who are interested in learning basic organic chemistry concepts. No college-level chemistry is required. P/NP or letter grading.
4B. What’s Cooking Chemistry in the Kitchen. (4) Lecture, three hours. What is difference between baking soda and baking powder? Why do some recipes call for buttermilk, margarine? Answers to these questions and more through dive into chemistry happening every day in your kitchen. Study of macromolecules that make up food (carbohydrates, proteins, and lipids), their chemical properties (hydrophobicity, pH, melting point, degree of saturation), and how to use these properties to control texture and taste in food. Chemical concepts are learned in fun, interactive ways; while use of scientific methods in improving food preparations is also learned. Opportunities to participate in scientific process through weekly at home experiments in kitchen, and creative research projects. P/NP or letter grading.
7. Nanoscience and Nanotechnology Laboratory. (2) Seminar, discussion, and laboratory, 32 hours. Limited to high school students. Key concepts of nanoscience and nanotechnology, including various approaches to nanofabrication (bottom-up and top-down). Fabrication of nanostructures and devices, collection of scientific data using those devices, analysis of data, and presentations of student results. Offered in summer only, P/NP grading.
8. Applications of Nanoscience. (2 to 4) Seminar, discussion, laboratory, and field trip, 30 to 60 hours. Limited to high school students. Introduction of advanced concepts of nanoscience and nanotechnology, with emphasis on applications of nanoscience and nanotechnology in other research fields and industries. Laboratories introduce students to research methods, experiment development, scientific writing, and presentation skills. Students devise and execute their own exploratory nanoscience experiments, and present them to technical audience. Offered only as part of Summer Institute. P/NP grading.
14A. General Chemistry. (4) Lecture, three hours; discussion, one hour. Preparation: high school chemistry or equivalent background and three and one half years of high school mathematics. Requirements: completion of Chemistry Diagnostic Test. Letter grading.

596. Directed Individual Research. (2 to 12) Tutorial, to be arranged. Directed study or research by supervising faculty member. Research group meetings, seminars, and discussions. May be repeated for credit. S/U grading.
general chemistry principles; atomic structure based on quantum mechanics; atomic properties; trends in periodic table; chemical bonding (Lewis structures, VSEPR theory, ionic, and molecular orbital theory); coordination compounds; properties of inorganic and organic acids, bases, buffers. P/NP or letter grading.

14AE. General Chemistry for Life Scientists I—En- hanced. (4) Lecture, three hours; discussion, one hour. Enforced requisite: course 14A, 14AE, 20A, or 20AH with grade of C– or better. Introduction to concepts in thermodynamics and kinetics; first, second, and third laws of thermodynamics; free energy changes; electrochemistry and its role as energy source; chemical kinetics, including catalysis, molecular structure and bonding, molecular forces and organization, phase behavior, and reaction mechanisms. P/NP or letter grading.

14BE. General Chemistry for Life Scientists II. (4) Lecture, three hours; discussion, one hour. Enforced requisite: one course from 14A, 14AE, 20A, or 20AH with grade of C– or better. Introduction to concepts in thermodynamics and kinetics; free energy changes; electrochemistry and role as energy source; chemical kinetics, including catalysis, molecular structure and bonding, reaction mechanisms. P/NP or letter grading.

14BL. General and Organic Chemistry Laboratory I. (3) Lecture, one hour; laboratory, three hours. Enforced requisite: course from 14A, 14BE, 20A, or 20AH with grade of C– or better. Enforced requisite or corequisite: Life Sciences 30B or Mathematics 3B or 31B with grade of C– or better. Not open to students with credit for course 14A or 20A. Study of fundamentals of chemistry; quantum mechanics and how these principles can be used to understand atomic and molecular structure and properties; how molecules interact; and properties of inorganic, organic, and biological acids, bases, and salts. Biological, environmental, and socially-rele vant examples are used to illustrate central role that chemistry plays in our world. Emphasis on developing problem-solving skills and collaborative interaction and learning. P/NP or letter grading.

14C. Structure of Organic Molecules. (4) Lecture, three hours; discussion, one hour. Enforced requisite: course 14B or 20B or 20AH with grade of C– or better. Enforced corequisite: course 14B. Not open to students with credit for course 20L. Introduction to volumetric, spectrophotometric, and potentiometric analysis. Use and preparation of buffers and pH meters. Synthesis and kinetics techniques using compounds of interest to students in life sciences. P/NP or letter grading.

14CL. General and Organic Chemistry Laboratory II. (4) Lecture, one hour; laboratory, six hours. Enforced requisite: courses 14B and 14BL, or 20B and 20L, with grades of C– or better. Enforced corequisite: course 14C. Analysis of compounds; purification by extraction, chromatography, recrystallization, and sublimation; characterization by mass spectrosopy, UV, NMR, and IR spectroscopy, optical activity, electrochemistry, pH titration. P/NP or letter grading.

14D. Organic Reactions and Pharmaceuticals. (4) Lecture, three hours; discussion, two hours; laboratory, four hours. Preparation: high school chemistry or equivalent background and three and one half hours of high school mathematics. Enforced requisite: course 14C with grade of C– or better. Organic reactions, nucleophile and electrophile substitutions and additions; electrophilic aromatic substitution. Reactivity of carbonyl compounds. Introduction to the design, synthesis, and testing of pharmaceuticals. One- and two-dimensional multinuclear magnetic resonance spectroscopy. P/NP or letter grading.

16. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their own areas of expertise and examining many paths of discovery at UCLA. P/NP or letter grading.

20A. Chemical Structure. (4) Lecture, three hours; discussion, one hour. Preparation: high school chemistry or equivalent background and three and one half years of high school mathematics. Enforced requisite: course 14C with grade of C– or better. Complete compilation of Chemical Diagnostic Test. Enforced coreq uisite: Mathematics 31A. Not open to students with credit for course 20B. Survey of chemical processes, quantum chemistry, atomic and molecular structure and bonding, molecular spectroscopy, P/NP or letter grading.

20AH. Chemical Structure (Honors). (4) Lecture, three hours; discussion, one hour. Preparation: high school chemistry or equivalent background, high school physics, and three and one half years of high school mathematics. Enforced corequisite: Mathematics 31A. Honors course parallel to course 20A. P/NP or letter grading.

20B. Chemical Energy and Changes. (4) Lecture, three hours; discussion, one hour. Enforced requisite: course 20A or 20AH, and Mathematics 31A, with grades of C– or better. Enforced corequisite: Mathematics 31B. Second term of general chemistry. Inter- molecular forces and organization, phase behavior, chemical thermodynamics, solutions, equilibria, reaction rates and laws. P/NP or letter grading.

20BH. Chemical Energies and Change (Honors). (4) Lecture, three hours; discussion, one hour. Enforced requisite: course 20A and Mathematics 31A with grades of C– or better. Enforced corequisite: Mathematics 31B. Honors course parallel to course 20B. Letter grading.

20L. General Chemistry Laboratory. (3) Lecture, one hour; laboratory, three hours. Enforced requisite: course 14A or 20A with grade of C– or better. Enforced corequisite: course 14B or 20B. Use of balance, volumetric techniques, volumetric and poten tiometric analysis; Beer’s law, applications for environmental analysis and materials science. P/NP or letter grading.

20AL. General Chemistry Laboratory II. (3) Lecture, one hour; laboratory, four hours. Preparation: courses 20B or 20BH, 20L, and 30A or 30AH, with grades of C– or better. Qualitative and quantitative analysis of chemical reactions and compounds, kin etics, separations, and spectroscopy. P/NP or letter grading.

20BL. Organic Chemistry Laboratory I. (3) Lecture, one hour; laboratory, three hours; discussion, one hour. Preparation: course 30A or 30AH, with grade of C– or better. Second term of or ganic chemistry for Chemistry, Biochemistry, and en gineering majors. Properties, synthesis, and reactions of alcohols, ethers, sulfur compounds, aldehydes, ke tones, carboxylic acids, and carboxylic acid deriva tives. Organometallic compounds. Organic spectros copy, including mass spectrometry, infrared spectroscopy, and proton and carbon nuclear magnetic resonance spectroscopy. P/NP or letter grading.

20CM. Organic Chemistry Laboratory II. (3) Lecture, one hour; laboratory, four hours. Preparation: courses 30A or 30AH, 30AL and 30B, with grades of C– or better. Basic experimental techniques in organic syn thesis, purification by extraction, chromatography, recrystallization, and sublimation; characterization by mass spectrosopy, UV, NMR, and IR spectroscopy, optical activity, electrochemistry, pH titration. P/NP or letter grading.


20CL. Organic Chemistry Laboratory II. (4) Lecture, two hours; laboratory, six hours. Enforced requisite: completion of Mathematics 31C and course 20C with grade of C– or better. Enforced corequisite: course 30C. Modern techniques in synthetic organic and analytical organic chemistry. Semi-preparative scale, multistep synthesis of organic and organometallic molecules, including asymmetric catalysts. One- and two-dimensional multinuclear NMR techniques. Written reports and proposals. P/NP or letter grading.

50. Computational Tools for Materials Modeling and Discovery. (4) Lecture, three hours. Enforced requisite: course 14A or 20A or 20AH, with grade of C– or better. Materials are central to many modern technolo gies, from industrial catalysis, to batteries, computer hard disks, and quantum computers. Computational modeling gains central stage in materials research and discovery, especially with emergence of artificial intel ligence techniques and big data initiatives. Introduc tion to computational tools enabling materials modeling, analysis, predictions, and graphical visualization. Topics such as crystallography, solid state chemistry, and surface science are brought together to enable effective modeling of solid state. Basic con cepts related to programming and scripting, and basis of computational chemistry included. P/NP or letter grading.

88A. Serendipity in Science. (2) Seminar, two hours. Limited to 20 freshmen. Inquiry into unexpected dis coveries in science that have had significant impact on society and analysis of circumstances that brought these about, beginning with discovery of helium in sun by Janssen in 1868 (using newly developed field of spectroscopy). Discovery of X rays by Röntgen in 1895 and of radioactivity by Becquerel in 1896. Other topics include discoveries important to medicine, such as penicillin by Fleming in 1928 and cis-platin by Rosenberg in 1969. P/NP or letter grading.

88H. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89C. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program.Designed to provide independent study with a faculty instructor. May be repeated for maximum of four units. Individual contract required. Honors content noted on transcript. Letter grading.
96. Special Courses in Chemistry. (1 to 4) Tutorial, to be arranged. May be repeated for maximum of 8 units. P/NP or letter grading.

98XA. PEERS Collaborative Learning Workshops for Life Sciences Majors. (1) Laboratory, three hours per week. Corequisite: associated undergraduate lecture course in chemistry and biochemistry for life sciences majors. Limited to Program for Excellence in Education and Research in Science (PEERS) students. Development of intuition and problem-solving skills in collaborative leaning environment. May be repeated four times, but only one unit may be applied toward graduation. P/NP grading.

98XB. PEERS Collaborative Learning Workshops for Physical Sciences and Engineering Majors. (1) Laboratory, three hours. Corequisite: associated undergraduate lecture course in chemistry and biochemistry for physical sciences and engineering majors. Limited to Program for Excellence in Education and Research in Science (PEERS) students. Development of intuition and problem-solving skills in collaborative leaning environment. May be repeated four times, but only one unit may be applied toward graduation. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division science majors. Corequisite: Laboratory 20B, Mathematics 32A or 32B, and Calculus 1A, 1B, or 1C (may be taken concurrently). Enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

C100. Genomics and Computational Biology. (5) Lecture, four hours; discussion, one hour. Introduction for biochemistry students of technologies and experimental data of genomics, as well as computational tools for analyzing them. Biochemistry and molecular biology dissected life into its component parts, one gene at a time, but lacked integrative mechanisms for putting this information back together to predict what happens in a system (e.g., over 80 percent of drug candidates fail in clinical trials). High-throughput technologies such as sequencing, microarrays, mass-spectrometry, and robotics have given biologists incredible new capabilities to analyze complete genomes, expression patterns, functions, and interactions across whole organisms, populations, and species. Use and analysis of such datasets becomes essential for modern biological science. Corequisites and methodologies for analyzing genomics data to answer biological and medical questions, with focus on concepts that guide data analysis rather than algorithms and programs. Concurrently scheduled with course C200. P/NP or letter grading.

101. Catalysis in Modern Drug Discovery. (4) Lecture, three hours; enforced requisite: course 14D or 30B with a grade of C– or better. Overview of drug discovery process with focus on transition metal catalysis in synthesis of medicines. Discussion of process by which drugs are discovered, from lead optimization to process development. Introduction to transition metal catalysis, area of critical importance in modern drug development. Study of fundamental concepts of transition metal catalysis and how catalysis has played transforming role in the development of modern medicines. Particular attention throughout to discussion of case studies that emphasize broad impact of medicinal chemistry and importance of catalysis in discovery of drug isomers. Highlights how organic chemistry can impact world around us, particularly in development of pharmaceuticals. P/NP or letter grading.

103. Environmental Chemistry. (4) Lecture, four hours; discussion, one hour. Requisites: courses 30B, 30BL, 110A, 110B, 110C, and 135 or Physics 131 and of analytic mechanics. Chemical and water quality, solid waste disposal, energy resources, and pesticide effects. Chemical reactions in environment and effect of chemical processes on environment. P/NP or letter grading.

C105. Introduction to Chemistry of Biology. (4) Lecture, three hours; discussion, one hour. Requisite: course 153A with grade of C– or better. Introduction to chemical biology. Topics include computational chemical biology, utility of synthesis in biochemical re-

search, peptidomimetics, designed reagents for cellular imaging, natural product biosynthesis, protein engineering and directed evolution, cell biology of metalloenzymes, imaging metal ions in cells, metal-containing drugs. Concurrently scheduled with course CM205A. Letter grading.

107. Organic Analytical Chemistry. (4) Lecture/discussion, four hours. Enforced requisite or corequisite: course 30A, 30AL, 10A, 110A, 110B, and 135 or Physics 105A. Introduction to organic and bioanalytical methods (emphasizing mechanistic approach) of compounds containing carbon bonded to elements selected from main group metals, metalloids, and transition metals, including electron complexes and metal-carbon bonds; applications in catalysis and organic synthesis. Concurrently scheduled with course C207. P/NP or letter grading.

108. Mass Spectrometry for Chemists and Biochemists. (2) Lecture, one hour; laboratory, four hours. Requisite: course 153A. Introduction to principles and practice of organic and inorganic mass spectrometry. Topics include EI, CI, ICPMS, GC/MS, LC/MS, ESI, MALDI, MS/MS protein identification, and proteomics. Concurrently scheduled with course C208. P/NP or letter grading.

110A. Physical Chemistry: Chemical Thermodynamics. (4) Lecture, three hours; discussion, one hour; tutorial, one hour. Requisites: courses 110A, 110B, Mathematics 32A or 32B, Physics 1A, 1B, and 1C (may be taken concurrently), or 1AH, 1BH, and 1CH (may be taken concurrently), or 5A, 5B, and 5C (may be taken concurrently). Fundamentals of thermodynamics, chemical and phase equilibria, thermodynamics of solutions, electrochemistry. P/NP or letter grading.

110B. Topics in Physical Chemistry. (4) Lecture, three hours; discussion, one hour; tutorial, one hour. Requisites: courses 110A, 110B, Mathematics 32A or 32B, Physics 1A, 1B, and 1C (may be taken concurrently), or 1AH, 1BH, and 1CH (may be taken concurrently), or 5A, 5B, and 5C (may be taken concurrently). Corequisites or methodologies: particle-in-box, harmonic oscillator, rigid rotor, and hydrogen atom; approximation methods: perturbation and variational methods; many-electron atoms, spin, and Pauli principle, chemical bonding. P/NP or letter grading.

113A. Physical Chemistry: Introduction to Quantum Mechanics. (4) Lecture, three hours; discussion, one hour. Requisites: course 20B, Mathematics 32A or 32B, Physics 1A, 1B, and 1C (may be taken concurrently), or 1AH, 1BH, and 1CH (may be taken concurrently), or 5A, 5B, and 5C (may be taken concurrently), or 6A, 6B, and 6C (may be taken concurrently). Corequisites: particle-in-box, harmonic oscillator, rigid rotor, and hydrogen atom; approximation methods: perturbation and variational methods; many-electron atoms, spin, and Pauli principle, chemical bonding. P/NP or letter grading.

113B. Quantum Chemistry Methods. (4) Lecture, three hours; discussion, one hour; tutorial, one hour. Requisite: course 113A. Complete introduction to electronic structure theory methods used by general computational chemistry community, focusing primarily on ab initio methods. Students gain understanding of electronic structure methods and tools to identify which methods are suitable for which types of systems. Methods covered include Hartree Fock, density-functional theory, perturbative methods, and modern high-correlation methods; and highlight algorithms necessary to implement these measurements accurately. Concurrently scheduled with course C213B. P/NP or letter grading.

114. Physical Chemistry Laboratory. (5) Lecture, two hours; laboratory, eight hours. Enforced requisites: courses 1A, 1B, and 1C or 2A, 2B, and 2C with grades of C– or better. Enforced corequisite: course 110B. Lectures include techniques of physical measurement, error analysis and statistics, special topics. Laboratory includes spectroscopy, thermodynamic measurements, and chemical dynamics. P/NP or letter grading.

114H. Physical Chemistry Laboratory (Honors). (5) Lecture, two hours; laboratory, eight hours. Enforced requisites: courses 3A, 110A, and 110B, with grades of B or better. Enforced corequisite: course 110B or C113B. Lectures include techniques of physical measurement, error analysis and statistics, special topics. Laboratory includes topics in physical chemistry to be selected in consultation with instructor. P/NP or letter grading.

C115A-C115B. Quantum Chemistry. (4) Lecture, four hours; discussion, one hour. Requisites: course 113A, Mathematics 31A, 31B, 32A, 32B, 33A, with grades of C– or better. Recommended: knowledge of differential equations equivalent to Mathematics 134 or 135 and of analytic mechanics equivalent to Physics 105A. Course C115A or Physics 115B with grade of C– or better is required to C115B. Students entering course C115A are normally expected to take course C115B to fulfill the requirements. Designated for chemistry students with serious interest in quantum chemistry. Postulates and systematic development of nonrelativistic quantum mechanics; expansion theorems; wells; oscillators; angular momentum; hydrogen atom; matrix techniques; approximation methods; time dependent problems; atoms; spectroscopy; magnetic resonance; chemical bonding. May be concurrently scheduled with courses C125A-C125B. P/NP or letter grading.

C115C. Advanced Quantum Chemistry: Applications. (4) Lecture, three hours; discussion, one hour. Requisites: courses 113A, C115B. Topics in quantum chemistry selected from current research on physical methods, theory of solids, symmetry and its applications, and theory of electromagnetic radiation. Concurrently scheduled with course C215C. P/NP or letter grading.

M117. Structure, Patterns, and Polyhedra. (5) (Same as Honors College M180B.) Lecture, four hours; activity, two hours. Exploration of structures and their geometric underpinnings, with examples and applications from architecture (Space Frame domes), biology (enzyme complexes, viruses), chemistry (symmetry, molecular cages), design (tiling), engineering (space filigree), and physics (fractal structures) to effect working knowledge of symmetry, two-dimensional patterns, and three-dimensional solids. P/NP or letter grading.

118. Colloidal Dynamics Laboratory. (4) Lecture, two hours; laboratory, eight hours. Requisites: courses 110A and 110B, with grades of B or better, or equivalent statistical mechanics courses from engineering, mathematics, or physics. One aspect of dispersions of microparticle in viscous liquids is that such dispersions can be used as visual model systems for studying phases that chemistry undergraduate students typically learn about for nanoscopic and molecular systems, yet they can observe continuously molecules and causes rearrangements, giving dynamic views of macromolecules and particles in many fields, including cell and molecular biology, chemical engineering, geology, materials science, and physics. Letter grading.

M120. Soft Matter Laboratory. (4) (Same as Physics M180G.) Lecture, 90 minutes; laboratory, four hours. Requisites: Physics 110B, 115A. Students gain experience of conducting independent research in experimental biological physics. Construction of modern microscope. Use of microscope to image biological specimens. Students learn optics, diffraction, imaging, microscopy, computational physics, and/or fluorescent labeling. P/NP or letter grading.

121. Special Topics in Physical Chemistry. (4) Lecture, four hours. Requisite: course 110B. Recommended: course 113A. Topics of considerable research interest presented at level suitable for students who have completed junior-year courses in physical chemistry. P/NP or letter grading.

C123A-C123B. Classical and Statistical Thermodynamics. (4-4) Lecture; four hours; discussion, one hour. Requisite: course 110B or 156. Recommended: course 113A. Study of fundamentals of classical thermodynamics. Principles of statistical thermodynamics: probability, ensembles, partition functions, independent molecules, and perfect gas. Applications of classical and statistical thermodynamics to ideal gases, real gases, nonideal gases, nonideal solutions, and phase equilibria. May be concurrently scheduled with course C223A-C223B. P/NP or letter grading.

125. Introduction to Python Programming and Machine Learning. (4) Lecture; three hours; laboratory, one hour. Requisite: course 14C or 30A, with grade of C– or better. Introduction to programming in Python and to machine learning and its many applications within chemical sciences. Topics include fundamentals of Python programming, routine numerical procedures such as optimization and linear regression, and overview of machine learning, with special emphasis on neural networks and deep learning, including implementation. Exploration of mainstream applications of machine learning to problems of chemical interest, including molecular simulation, protein structure prediction, and statistical sampling for materials design/discovery. Particular topics to be covered and projects to be completed may be decided in part based on student interest and input. P/NP or letter grading.

C126A. Computational Methods for Chemists. (4) Lecture; one hour; laboratory, four hours. Requisites: courses 110A, 113A, Mathematics 33A. Covers some basics of scientific computing. Introduction to advanced applications provided through commercially available computational packages. Includes quantum mechanical techniques for chemistry, quantum chemistry, and computational structural chemistry, including methods for computation of electronic and vibrational properties. May be concurrently scheduled with course C226A. P/NP or letter grading.

CM127. Synthetic Biology for Biofuels. (4) (Same as Chemical Engineering CM127.) Lecture; four hours; discussion, one hour. Requisite: course 153A. Engineering microorganisms for complex phenotype is common goal of synthetic and systems biology. Production of advanced biofuels involves designing and constructing novel metabolic networks in cells. Such efforts require profound understanding of biochemistry, genetics, and systems biology. Modern metabolic engineering approaches can be used to design new metabolic pathways and metabolic networks to microorganisms for energy applications. Concurrently scheduled with course CM227. Letter grading.

C132A. Core Principles in Cell and Molecular Biology. (4) Lecture and laboratory, seven hours. Students gain broad foundational knowledge and skills for rigorous research in emerging areas of cell and molecular biology. Focus on foundational knowledge of molecular biology, including core cellular processes and the building blocks of living systems. Core facilities that specialize in these approaches to facilitate use of these approaches in their research. Continuation of in-depth analysis of rigorous experimental design and statistical analyses in cell and molecular biology. Concurrently scheduled with course C232A. P/NP or letter grading.

136. Organic Structural Methods. (5) Lecture, two hours; laboratory, eight hours. Requisites: courses 30C and 30CL, with grades of C– or better. Laboratory course in organic structure determination by chemical and spectroscopic methods; microtechniques. P/NP or letter grading.

C138. Natural Product Biosynthesis: Chemical Logic and Synthesis. (4) Lecture, three hours; discussion, one hour. Requisites: courses 30A, 30B, 30C, 153A. Covers fundamental chemical logic and enzyme mechanisms involved in biosynthesis of natural products such as polyketides, nonribosomal peptides, terpenoids, alkaloids. Emphasis on biosynthetic logic used by nature to form complex molecules. Discussion of several classes of enzymes and pathways, in context of biosynthesis, including assembly-line mechanisms, group transferases, reductases, etc. Historical account of natural product isolation and characterization in laboratories such as those at Caltech. Emphasis is on understanding biological mechanisms that were used to discover new natural products. Includes extensive survey of scientific literature in format of presentations and discussions. Concurrently scheduled with course C238. Letter grading.

C140. Bioanotechnology. (4) Lecture, three hours. Requisites: courses 30C, 110A. Basic physical, chemical, and biological principles in biotechnology; material and strain selection; bottom-up fabrication of ordered biologically derived molecules, characterization and detection techniques, and biotechnological and experimental applications at nanoscale. May be concurrently scheduled with course C240. P/NP or letter grading.

C143A. Structure and Mechanism in Organic Chemistry. (4) Lecture; three hours; discussion, one hour. Requisites: courses 30C and 30CL (may be taken concurrently), 110A, with grade of C– or better. Mechanisms of organic reactions. Acidic and basic catalysis; elementary free energy relationships; isotope effects. Molecular orbital theory and organic chemistry; pericyclic reactions. May be concurrently scheduled with course C243A. P/NP or letter grading.

C143B. Mechanism and Structure in Organic Chemistry. (4) Lecture; three hours; discussion, one hour. Requisite: course C143A with grade of C– or better. Mechanisms of organic reactions; structure and detection of reactive intermediates. May be concurrently scheduled with course C243B. P/NP or letter grading.

144. Practical and Theoretical Introductory Organic Synthesis. (5) Lecture, two hours; laboratory, eight hours. Enrolled requisites: courses 30C and 30CL with grades of C– or better. Lectures on modern synthetic reactions and processes, with emphasis on stereospecific methods for carbon-carbon bond formation. Laboratory methods of synthetic organic chemistry, including reaction techniques, synthesis of natural products, and molecules of theoretical interest. P/NP or letter grading.

C145. Theoretical and Computational Organic Chemistry. (4) Lecture, two hours; discussion, one hour; computer laboratory, one hour. Requisites: courses 30C, 113A. Applications of quantum mechanical methods and computational methods to understand and predict organic structures and reactivities. Computational modeling methods, including laboratory experience with force-field and quantum chemical computer calculations. Concurrently scheduled with course C245. P/NP or letter grading.

147. Careers in Chemistry and Biochemistry. (2) Seminar, two hours. Exploration of employment and career opportunities available to students. Different speakers give short presentations to describe their career paths in areas such as industry, government, research and development, education, law, and healthcare. Examine how chemistry and biochemistry helped them become successful, and what actual chemistry was used in their particular professions. Students learn and understand real-life applications of scientific concepts found in their course work. P/NP or letter grading.

C150. Research Methods and Integrity in Cellular and Molecular Biology. (4) Lecture, two hours; discussion, two hours. Data analysis and management, statistical techniques, hypothesis testing, scientific ethics, key research concepts, including the scientific method, research design, hypothesis formulation, authorship, mentoring, human subject protection, animal subject protection, and conflict of interest. May be repeated for credit. Concurrently scheduled with course C250. Letter grading.

151. Machine Learning for Chemistry. (Formerly 51) Lecture; three hours; laboratory, four hours. Requisites: courses 20B or 20BH, Mathematics 33A or 33AH. Introduction to machine learning and its many applications within chemical sciences. Topics include widely-used methods such as classical machine learning models, including neural networks and deep learning, supervised and unsupervised learning, and dimensionality reduction. Exploration of mainstream applications of machine learning to problems of chemical interest, including molecular simulation and computer-aided drug development and material design/discovery. Succinct introduction to linear algebra and programming in Python. Recommended: Life Sciences 2, 3, 23L. Honors course completed may be decided in part based on student interest and input. P/NP or letter grading.

153A. Biochemistry: Introduction to Structure, Enzymes, and Metabolism. (4) Lecture, four hours; discussion, one hour. Requisite: course 14D or 30B, with grade of C– or better. Recommended: Life Sciences 2, 3, 23L, 7A. Structure of proteins, carbohydrates, and lipids; enzyme catalysis and principles of metabolism. Inactivation of enzymes. Oxidative phosphorylation. P/NP or letter grading.

153AH. Biochemistry: Introduction to Structure, Enzymes, and Metabolism (Honors). (4) Lecture, three hours; discussion, one hour; tutorial, one hour. Requisite: course 153A or 153AH. Recommended: Life Sciences 2, 3, 23L, and 7A and 7B. Nucleotide metabolism; DNA replication; RNA replication; transcription machinery; regulation of transcription; RNA structure and processing; protein synthesis and processing. P/NP or letter grading.

153BH. Biochemistry: DNA, RNA, and Protein Synthesis (Honors). (4) Lecture, three hours; discussion, one hour; tutorial, one hour. Enforced requisites: course 153A or 153AH, Life Sciences 2, 3, 23L. Honors course parallel to course 153B. P/NP or letter grading.

153C. Biochemistry: Biosynthetic and Energy Metabolism and Its Regulation. (4) Lecture, three hours; discussion, one hour; tutorial, one hour. Requisite: course 153A or 153AH. Metabolism of carbohydrates, fatty acids, amino acids, and lipids; photosynthetic and respiratory metabolism; amino acid and purine metabolism; regulation of these processes. P/NP or letter grading.

153CH. Biochemistry: Biosynthetic and Energy Metabolism and Its Regulation (Honors). (4) Lecture, three hours; discussion, one hour; tutorial, one hour. Requisites: course 153A or 153AH. Honors course parallel to course 153C. P/NP or letter grading.

153D. Introduction to Protein Structural Biology. (4) Lecture, three hours; discussion, one hour. Requisites: course 153A, Life Sciences 3 or 7A. Proteins are diverse set of macromolecules that perform critical functions within cells, ranging from enzymes that catalyze metabolic reactions to proteins that enable pathogen infections. Students are equipped with theory of modern experimental approaches, and acquire hands-on skills training in designing experiments and analyzing data using these approaches. Students learn the bioinformatics methods and web tools used to identify protein structural biology, that seeks to understand molecular basis of protein function through visualizing atomic structures and by investigating how alterations in protein structure affects function. Students gain fundamental understanding of protein structure and its relationship to function and learn how experimental and computational methods are used to determine three-dimensional structures of proteins. Hands-on training in computer graphics programs and online tools used to visualize and analyze protein structures. Letter grading.

155. Biochemical Methods. (4) Lecture, two hours; laboratory, four hours. Requisites: courses 14BL or 20L and 30AL, and 153A or 153AH (may be taken concurrently), with grades of C– or better. Integrated term-long project involving biofuel production in bacteria. Purification of key enzyme for alcohol production from bacteria via affinity chromatography. Assessment
of protein amount, purity, and activity of enzyme. Techniques include protein determination by Bradford assay, polyacrylamide gel electrophoresis, immuno- blotting, and enzyme activity assays to determine enzy-
me activity (Km, Vmax, inhibitor studies). P/NP or letter grading.

154. Biochemical Methods II. (5) Lecture, two hours; laboratory, eight hours. Enforced requisites: courses 153A, 153B, 153H, 153I, and 153L, with grades of C– or better. Recommended: course 156. Two to three major laboratory projects using biochemical laboratory techniques to investigate contemporary problems in biochemistry. Topics include transduction of activa-
tion, molecular basis of DNA-protein interactions, biochemical basis of platelet activation, and ini-
tiation of blood clotting cascade. Experiments entail characterizing binding of proteins, nucleic acids, and lipids involved in these processes. P/NP or letter grading.

C155. Mitochondria in Medicine, Biology, and Chemistry. (1) Seminar, two hours every other week. Open to undergraduate and graduate science majors considering or currently conducting research in areas related to mitochondria. Large number of physiological and pathological processes involve mito-
chondria. Topics include transduction of activa-
tion, mitochondrial metabolism, neurodegenerative dis-
cases, apoptosis, and aging. Discussion of radical re-
actions, how they are harnessed to achieve enzyme catalysis, and how free radicals contribute to or regu-
late easy oxidative damage. These free radicals can alter in biochemistry that run amok under certain types of stress and can contribute to wide variety of diseases, including neuro-
degenerative disorders (e.g., Huntington’s, Parkinson’s, and Alzheimer’s disease), mitochondrial diseases, atherosclerosis, and aging. Concurrently scheduled with course C264. P/NP or letter grading.

C165. Metabolic Control by Protein Modification. (4) Lecture, three hours; laboratory, three hours. Enforced requisites: courses 153A, 153B, 153C. Biochemical basis of con-
trolling metabolic pathways by posttranslational mod-
fication of proteins, including phosphorylation and poly-

166. RNA Structure, Recognition, and Function. (4) Lecture, three hours; discussion, one hour. Requisites: courses 153A, 153B, Life Sciences 3 and 23L, or 7A. Recent and ongoing study of how RNA, through its unique character of diverse structures and functions of RNA molecules in metabolism of living systems. RNA has shown to act both as catalyst in living sys-
tems and as potent modulator of gene expression. May be concurrently scheduled with course C276A. P/NP or letter grading.

170. Biochemistry and Molecular Biology of Photosynthetic Apparatus. (2 to 4) (Same as Molec-
ular, Cell, and Developmental Biology M170.) Lecture, two to three hours; laboratory, three to two hours. Requisites: courses 153A and 153B, or Life Sciences 3 and 23L, and course 153L. Recommended: courses 153C, 154, Life Sciences 4. Light harvesting, photo-
chemistry, electron transfer, carbon fixation, carbo-
ydrate metabolism, pigment synthesis in chloroplasts and bacteria. Assembly of photosynthetic membranes and regulation of genes encoding those components. Emphasis on understanding of experimental ap-
proaches. Concurrently scheduled with course C270. P/NP or letter grading.

171. Intermediate Inorganic Chemistry. (4) Lecture, three hours; discussion, one hour. Requisite: course 110B with grade of C– or better. Systematic approach to modern inorganic chemistry, structure and bonding of inorganic molecules and solids, structure/reactivity relationships, vibrations of ions, electronic structure and ligand-
field theory, mechanisms of inorganic reactions, bonding and characterization of complexes, transition metals in catalysis and biology. Concurrently scheduled with course C272. P/NP or letter grading.

C172. Advanced Inorganic Chemistry. (4) (Formerly numbered 172.) Lecture, three hours; discussion, one hour. Requisite: course 171 with grade of C– or better. Systematic approach to modern inorganic chemistry, structure and bonding of inorganic molecules and solids, structure/reactivity relationships, vibrations of ions, electronic structure and ligand-
field theory, mechanisms of inorganic reactions, bonding and characterization of complexes, transition metals in catalysis and biology. Concurrently scheduled with course C272. P/NP or letter grading.

C173. Electrochemical Systems. (4) Lecture, three hours; discussion, two hours. Requisites: course 110A, Mathematics 33B. Introduction to principles of electrochemical systems commonly applied in re-
search of inorganic chemistry, materials sciences, and nanotechnology. With examples in recent literature and discussions of experimental practice, focus on qualitative and quantitative evaluation of information obtained and description of experimental methods. Understanding of course contents helps ap-
preciate research and technologies in catalysis, en-
ergy storage and conversion, and advanced environ-
mental technologies. Concurrently scheduled with course C273. P/NP or letter grading.

C174. Inorganic and Metallographic Laboratory Meth-
ods. (5) Lecture, two hours; laboratory, eight hours. Enforced requisites: courses 30CL and 171, with grades of C– or better. Synthesis of inorganic com-
 pounds, including mechanistic studies; Schlenck techniques; chromatographic and ion exchange methods; spectroscopic characterization and literature application of these. Concurrently scheduled with course C274A. P/NP or letter grading.

C175. Inorganic Reaction Mechanisms. (4) Lecture, three hours. Requisites: courses 110A, 110B, 113A, and 112, with grades of C– or better. Survey of inorganic reactions, including acidic and basic reac-
tions; stereochemistry; oxidation/reduction, free-
radical, polymerization, and photochemical reactions of inorganic species. May be concurrently scheduled with course C275. P/NP or letter grading.

C176. Group Theory and Applications to Inorganic Chemistry. (4) Lecture, three hours; discussion, one hour. Requisites: courses 113A and 112, with grades of C– or better. Group theoretical methods; molecular orbital theory; ligand-field theory; electronic spectro-
scopy; inorganic speciation. Concurrently scheduled with course C276A. P/NP or letter grading.

180. Solid-State Chemistry. (4) Lecture, three hours. Requisite: course 172 with grade of C– or better. Survey of solid-state methods for their prepara-
tive and characterization, with emphasis on band theory and its relationships to chemical, optical, trans-
port, and magnetic properties, leading to deeper un-
derstanding of these materials. Concurrently sched-
uled with course C280. P/NP or letter grading.

C181. Polymer Chemistry. (4) Lecture, three hours; discussion, one hour. Requisites: courses 30B, 110A. Synthesis of organic and inorganic macromolecules, thermodynamic and structural properties, descrip-
tions of unique properties of polymers, polymer char-
acterization methods, and special topics such as con-
ductive and biomedical polymers and polymeric re-
agents in synthesis. Concurrently scheduled with course C281. P/NP or letter grading.

184. Chemical Instrumentation. (5) Lecture, two hours; laboratory, eight hours. Enforced requisites: courses 30CL and 110A, with grades of C– or better. Theory and practice of instrumental techniques of chemical and structural analysis, including atomic absorption spectroscopy, gas chromatography, mass spectrom-
etry, nuclear magnetic resonance, polarography, X-ray fluorescence, and other modern methods. P/NP or letter grading.

185. Materials Chemistry Laboratory. (5) Lecture, two hours; laboratory, eight hours. Requisites: courses 30AL, 110A, 113A, 171. Materials synthesis and phys-
ical properties: fundamental materials synthesis and character-
istic with fundamental physical understanding and characterization in approximately equal propor-
tions to relate materials synthesis to materials func-
tion, Letter grading.

M186. Stochastic Processes in Biochemical Sys-
tems. (4) (Same as Computational and Systems Bi-
ology M175.) Lecture, three hours. Requisites: Life Sciences 1, 2, 3, and 7A, 7B, and 171, Mathe-
matics 33B, Electrical and Computer Engineering 131A or Mathematics 170A or Statistics 100A. Covers random and stochastic processes in play in biochem-
ical systems, including ion channels, cytoskeleton, cell migration and mitosis, gene expression networks, and signal transduction. Covers mathematical tools such as continuous and discrete Markov processes, first passage, time escape, and dynamic mechan-
ic, and information theory. Letter grading.

188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilita-
tors. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin prepa-
188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced requisite: course 188SA. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to finalize course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SB. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced requisite: course 188SB. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE 88S course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study of topics distinct from regular course topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

192A-192B. Undergraduate Practicum in Chemistry and Biochemistry. (4–4) Lecture, one hour; laboratory, four hours. Enforced requisite: course 141BL and 141CL, or 20L and 30AL, or Science Education 100S. Intended for students who are planning careers in secondary science chemistry teaching. Complement lecture using California Teach science courses that involve teaching field experiences in middle school and high school classrooms. Examination of chemistry issues such as chemical storage and use, waste, laboratory organization, safety, and techniques. P/NP or letter grading.

192C-192D. Undergraduate Assistant Education Practicum in Chemistry and Biochemistry. (4–2) Seminar, one hour; assigned setting, six hours (course 192C) or five hours (course 192D). Limited to juniors/seniors. Training and supervised practicum for advanced undergraduate students to assist in chemistry and biochemistry lectures. Students assist in preparation of materials and management of innovative experiments under guidance of faculty members and teaching assistants. May not be applied toward course requirements for any departmental major. May be repeated for credit. May be repeatable as required of instructor in individual contract required. Information and contracts may be obtained from department. P/NP grading.


192F. Methods and Application of Collaborative Learning Theory and Practice: Introduction, Methods, and Application. (2–4) Seminar, one hour; clinic, one to eight hours. Requisite: course 192E or Life Sciences 192A or Physics 192S with grade of C– or better. With instructor guidance, students apply pedagogical principles based on current education research, assist with development of innovative instructional materials, and receive frequent feedback on their progress. May be repeated for four times for credit. Letter grading.

193A. Journal Club Seminars: UC LEADS and MARC. (2) Seminar, three hours. Designed for juniors/seniors in undergraduate research training programs such as UC LEADS and MARC or those who have strong commitment to pursue graduate studies in natural sciences, engineering, or mathematics. Weekly reading and oral presentations of research or research papers selected by student. Literature may be repeated for credit. Letter grading.

193B. Journal Club Seminars: Chemistry and Biochemistry. (2) Seminar, three hours. Limited to undergraduate students. Discussion of readings selected from current literature. May be repeated for credit. P/NP grading.

194. Research Group Seminars: Chemistry and Biochemistry. (1) Seminar, three hours. Designed for under-graduate students who are part of research group. Advanced study and analysis of current topics in physical, organic, or inorganic chemistry or biochemistry. Discussion of current research and literature in research specialty of faculty member teaching course. May be repeated for credit. P/NP grading.

196A. Research Apprenticeship in Chemistry and Biochemistry. (2 or 4) Tutorial, three hours per week per unit. Limited to juniors/seniors. Entry-level research apprenticeship for undergraduate students. Enrolled department for additional information regarding requirements, enrollment petitions, and written proposal deadlines. May be repeated for maximum of 8 units. Individual contract required. P/NP or letter grading.

196B. Research Apprenticeship in Chemistry and Biochemistry. (2 or 4) Tutorial, three hours per week per unit. Enforced requisite: course 196A (8 units). Limited to juniors/seniors. Research apprenticeship for upper-division students under guidance of faculty mentor. Consult department for additional information regarding requirements, enrollment petitions, and written proposal deadlines. May be taken for maximum of 4 units. Individual contract required. P/NP or letter grading.

199. Directed Research in Chemistry and Biochemistry. (2 or 4) Tutorial, three hours per week per unit. Enforced requisite: course 196A (8 units). Limited to juniors/seniors. Supervised individual research under guidance of faculty mentor. Culminating report required. May be repeated for maximum of 12 units. Individual contract required. P/NP or letter grading.

Graduate Courses

C200. Genomics and Computational Biology. (5) Lecture, four hours; discussion, one hour. Introduction for biochemistry students of technologies and experimental data of genomics, as well as computational tools. Exploration of bioinformatics, biochemistry and molecular biology dissected life into its component parts, one gene at a time, but lacked integrative mechanisms for putting this information back together to predict what happened. Core principles and methodologies for analyzing genomics data to answer biological and medical questions, with focus on concepts that guide data analysis rather than algorithms. Application of modern high-correlation methods; and highlight algorithm details. Concurrently scheduled with course C107. S/U or letter grading.

201. Scientific Proposal Writing. (2) Lecture, three hours. Designed for graduate biochemistry and molecular biology students. How to write scientific proposals to justify research projects. How to develop curricula vitae, put together grant proposals, and critique proposals. Letter grading.

203B. Ethics in Chemical Research. (2) Seminar, one hour. Discussion of ethics in graduate education, teaching, and chemical research, including issues such as conflicts of interest, plagiarism, intellectual property, sexual harassment, and other topics related to ethical conduct of research. S/U grading.

203C. Research Integrity and Ethics in Genetics Research. (2) Lecture, 90 minutes. Data analysis and management, statistical methods, use of commercial reagents, microscopy data analysis, figure preparation, authorship, mentoring, human subjects protection, animal subject protection, and conflict of interest. May be repeated for credit. S/U grading.

203D. Advanced Topics in Responsible Conduct in Cellular and Molecular Biology Research. (2) Seminar, two hours. Enforced requisite: course 203A or 203C. Cellular and molecular biology PhD students continue to learn how to conduct research in such a way as to reliably advance knowledge while maintaining ethical principles. Designed to be taken in fourth or fifth year of PhD work where students would have already been exposed to many challenges of performing research and who are in stage of their careers where they are beginning to think of applying for postdoctoral fellowships and research and teaching positions. Course helps fulfill training requirements in research integrity for NIH training grants and individual NRSA awards. S/U grading.

204. Student Research Seminar. (2) Seminar, one hour. Limited to students supported by UCLA program in Cellular and Molecular Biology Predoctoral Training. Research seminar presented by second- and third-year students. S/U grading.

CM205A. Introduction to Chemistry of Biology. (4) (Same as Pharmacology M205A.) Lecture, three hours; discussion, one hour. Introduction to chemical and biochemical topics, including chemical biology, utility of synthesis in biochemical research, peptide mimetics, designed reagents for cellular imaging, molecular product design, and directed evolution. Course helps fill learning and directed evolution, cell biology of metal ions, imaging metal ions in cells, metal-containing drugs. Concurrently scheduled with course C105. Letter grading.

M205B. Issues on Chemistry/Biology Interface. (2) (Same as Pharmacology M205B.) Seminar, one hour. Requisite: course CM205A. Selected talks and papers presented by training faculty on solving problems and utilizing tools in chemistry and molecular biology on challenges in chemical biology interface (CBI, S/U grading).

206. Chemistry of Biology Seminar. (2) Seminar, three hours. Limited to students supported by UCLA program in Chemistry/Biology Interface Predoctoral Training. Current research topics at interface of chemistry and biology. May be repeated for credit. S/U grading.

C207. Organometallic Chemistry. (4) Lecture/discussion, three hours. Requisite or corequisite: course 172. Survey of synthesis, structure, and reactivity (emphasis on mechanistic approaches) of compounds containing carbon bonded to elements selected from main group metals, metalloids, and transition metals, including synthetic methods and application in catalysis and organic synthesis. Concurrently scheduled with course C107. S/U or letter grading.

208. Mass Spectrometry for Chemists and Biologists. (2) Lecture, one hour; discussion, four hours. Requisite: course 153A. Introduction to principles and practice of organic and inorganic mass spectrometry. Topics include EI, CI, ICPSM, GC/MS, LC/MS, ESI, MALDI, MS/MS protein identification, and proteomics. Concurrently scheduled with course C108. S/U or letter grading.

209. Introduction to Chemistry Research. (2) Seminar, two hours. Half-hour presentations each session by three different chemists to introduce their research programs. S/U grading.

210. Advanced Topics in Chemical Research. (2) Seminar, one hour. Designed for second-year graduate students to help them engage contemporary challenges in chemical research and their own research projects. Building of critical thinking skills and proposal writing skills. S/U grading.

C213B. Quantum Chemistry Methods. (4) Lecture, two hours; discussion, one hour. Requisite: course 113A. Complete introduction to electronic structure theory methods used by general computational chemistry community, focusing primarily on ab initio methods that students gain understanding of electronic structure methods and tools to identify which methods are suitable for which types of systems. Methods covered include Hartree Fock, density-functional theory, perturbative methods, and modern high-correlation methods; and highlight algo-
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C215A-C215B. Quantum Chemistry: Methods, (4-4) Lecture, four hours; discussion, one hour. Requisites: course 113A, Mathematics 31A, 31B, 32A, 32B, 33A, with grades of C– or better. Recommended: knowledge of matrices equivalent to Mathematics 134 or 135 or Physics 131 and of analytic mechanics equivalent to Physics 105A, Course C215A or Physics 115B with grade of C– or better is requisite to C215B. Students entering course C215A are normally expected to take course C215B in following term. Designated for chemistry students with serious interest in quantum chemistry. Postulates and systematic development of nonrelativistic quantum mechanics; expansion theorems; wells; oscillators; atomic momentum; hydrogen atom; matrix techniques; approximation methods; time dependent problems; atoms; spectros, copy; magnetic resonance; chemical bonding. May be concurrently scheduled with courses C115A-C115B. S/U or letter grading.

C219X. Dynamic Processes in Chemically Reorganizing Media. (2-4) Lecture, four hours; discussion, one hour. Requisite: course 110B or 156. Recommended: courses 113A and 113B, or equivalent from classical and statistical thermodynamics. Principles of statistical thermodynamics: probability, ensembles, partition functions, independent molecules, and perfect gas. Applications of classical and statistical thermodynamics selected from diatomic and polyatomic gases, solids, liquids and fluids, phase equilibria, electric and magnetic effects, ortho-par hydrogen, chemical equilibria, reaction rates, surface and electrostatics, solid and fluid phases, surface phenomena, high polymers, gravitation. May be concurrently scheduled with courses C123A-C123B. S/U or letter grading.


C226A. Computational Methods for Chemists. (4) Lecture, one hour; laboratory, four hours. Requisites: courses 110A, 113A, Mathematics 33A. Covers some basic scientific computing, introduction to advanced algorithms, and introduction to commercially available computational packages. Includes quantum mechanical techniques for chemistry, reactivity, spectroscopy, solid state calculations; statistical mechanical techniques for chemistry and biochemistry; python coding; basic algorithms, machine learning, and numerical techniques. Concurrently scheduled with course C216A. S/U or letter grading.

C227. Synthetic Biology and Biofuels. (4) Same as Chemical Engineering CM227. Lecture, four hours; discussion, one hour. Requisite: course 153A. Engineering microorganisms for complex phenotype is common goal of metabolic engineering and synthetic biology. Production of advanced biofuels involves designing and constructing novel metabolic networks in cells. Such efforts require profound understanding of the design rules that govern these networks. Current strategies are aided by tools in bioinformatics, systems biology, and molecular biology. Fundamentals of metabolic systems biology, protein structure and function, and peripheral bioinformatics. Use of systems modeling for metabolic networks to design microorganisms for energy applications. Concurrently scheduled with course CM127. S/U or letter grading.

C229. Introduction to Physical Chemistry Research. (2) Lecture, 90 minutes. Designed primarily for entering graduate physical chemistry students. S/U grading.


M230B. Structural Molecular Biology Laboratory. (2) Same as Molecular, Cell, and Developmental Biology M230B. Lecture, three hours; discussion, one hour. Requisite: courses 110B or 156. Recommended: courses 113A and 113B, or equivalent from classical and statistical thermodynamics. Principles of statistical thermodynamics: probability, ensembles, partition functions, independent molecules, and perfect gas. Applications of classical and statistical thermodynamics selected from diatomic and polyatomic gases, solids, liquids and fluids, phase equilibria, electric and magnetic effects, ortho-par hydrogen, chemical equilibria, reaction rates, surface and electrostatics, solid and fluid phases, surface phenomena, high polymers, gravitation. May be concurrently scheduled with courses C123A-C123B. S/U or letter grading.


C235A. Advancing Research and Approaches in Cell and Molecular Biology Research. (2) Seminar, two hours. Students are trained to develop skills necessary to persist and thrive as researchers and scholars in cellular and molecular biology. Topics include resilience in science, balancing work-life, organizing research and career goals, writing impactful abstracts, and presenting great talks. S/U grading.

C235K. Synthetic Methods Development. (3) Lecture, three hours. Requisite: course 113A. Enforced requisites: Mathematics 31A, 31B, 32A, 32B. Review of basic mathematics necessary to study physical chemistry at graduate level, with focus on review of vectors, linear algebra, elementary complex analysis, and solution of ordinary and partial differential equations. Development of problem-solving skills through homework based on these mathematical techniques, with examples from physical chemistry literature. May be concurrently scheduled with course C122. S/U or letter grading.

C235Q. Synthetic Methods Development. (3) Lecture, three hours. Requisite: course 113A. Enforced requisites: Mathematics 31A, 31B, 32A, 32B. Review of basic mathematics necessary to study physical chemistry at graduate level, with focus on review of vectors, linear algebra, elementary complex analysis, and solution of ordinary and partial differential equations. Development of problem-solving skills through homework based on these mathematical techniques, with examples from physical chemistry literature. May be concurrently scheduled with course C122. S/U or letter grading.
of natural product including polyketides, nonribosomal peptides, terpenes, alkaloids. Emphasis on biosynthetic logic used by nature to form complex molecules. Discussion of several important enzyme families in context of biosynthesis, including assembly-line megasynthases, group transferases, oxidoreductases, etc. Historical account of natural product isolation and megasynthases, group transferases, oxidoreductases, in context of biosynthesis, including assembly-line synthetic logic used by nature to form complex molecules. Lecture, two hours. Requisite or corequisite: course C243A. Theory behind planning of syntheses of complex molecules. S/U or letter grading.

249B. Methods of Chemical Synthesis: Organic/Inorganic/Organometallic. (2) Seminar, two hours. Designed for first-year graduate students to teach advanced problem-solving skills and critical thinking, with focus on problems and recent literature pertaining to chemical synthesis of inorganic, organic, and organometallic compounds. S/U grading.

249C. Methods of Physical/Theoretical/Biophysical Chemistry. (2) Seminar, two hours. Designed for first-year graduate students to teach advanced problem-solving skills and critical thinking, with focus on problems and recent literature pertaining to physical, theoretical, and biophysical chemistry. S/U grading.

250. Research Methods and Integrity in Cellular and Molecular Biology. (2) Seminar, two hours. Data analysis and management, statistical methods, use of antibody and kit reagents, figure preparation, authorship, mentoring, human subject approval, and ethical issues. May be concurrently scheduled with course C159. S/U or letter grading.

250A. Organic Chemistry: Mechanism and Structure. (4) Lecture, three hours; discussion, one hour. Requisite: course C243A. Mechanisms of organic reactions; structure and detection of reactive intermediates. May be concurrently scheduled with course C143A. S/U or letter grading.

250B. Organic Chemistry: Mechanism and Structure. (4) Lecture, three hours; discussion, one hour. Requisite: course C243A. Mechanisms of organic reactions; structure and detection of reactive intermediates. May be concurrently scheduled with course C143A. S/U or letter grading.

244A. Organic Synthesis: Methodology and Stereochemistry. (4) Lecture, three hours; discussion, one hour. Modern synthetic reactions and transformations involving organic substrates. Special emphasis on reagents useful in asymmetric induction and stereoselective synthesis of structurally complex target molecules. S/U or letter grading.


245. Computational Organic Chemistry. (4) Lecture, two hours; discussion, one hour; computer laboratory, one hour. Requisites: courses 30C, 113A. Applications of quantum mechanical concepts and methods to understand and predict organic structures and reactivities. Computational modeling methods, including laboratory experience with force-field and quantum mechanical computer calculations. Concurrently scheduled with course C145. S/U or letter grading.

247. Organic Colloquium. (2) Seminar, two hours. Seminars in organic chemistry and related areas presented by staff, outside speakers, postdoctoral fellows, and graduate students. May be repeated for credit. S/U or letter grading.

248. Organic Chemistry Student Seminar. (2) Seminar, two hours. Seminars presented by staff, outside speakers, postdoctoral fellows, and faculty/staff from diverse disciplines. May be repeated for credit. S/U or letter grading.

256B. Advanced Bioinformatics Computational Laboratory. (2) Laboratory, four hours. Enforced requisites: courses 269A and C159. Development and application of computational approaches to ask and answer questions by implementing variety of bioinformatics and systems biology algorithms. Advantages and disadvantages of different algorithmic methods for studying biological questions and preliminary understanding of how to compute statistical significance of results. Development of conceptual understanding of implementation of bioinformatics algorithms and foundation for how to do innovative work in these fields. Experience in observing impact of computational complexity of algorithms in computing solutions. S/U or letter grading.

262. Biochemistry and Molecular Biology of Protein Translation Systems. (4) Lecture, two hours; discussion, two hours. Requisites: courses 269A through 269D. Protein translocation into nucleus, mitochondrion, peroxisome, chloroplast, endoplasmic reticulum, and protein export in bacteria. Letter grading.

263. Seminars in Chemical Biology. (2) Seminar, two hours. Seminars in chemical biology (broadly defined) presented by outside speakers, graduate students, postdoctoral fellows, and faculty/staff from diverse disciplines. May be repeated for credit. S/U or letter grading.

264. Free Radicals in Biology and Medicine. (2) Lecture, four hours. Enforced requisites: courses 153A and either 153B or 153C, with grades of C– or better. Biochemical reactivity of dioxygen, its role in mitochondrial metabolism, neurodegenerative diseases, apoptosis, and aging. Discussion of radical re-actions, how they are harnessed to achieve enzyme catalysis, and how free radicals contribute to or regulate essential biological processes. These same reactions run amok under certain types of stress and can contribute to wide variety of diseases, including neurodegenerative diseases (e.g., Huntington’s, Parkinson’s, and Alzheimer’s diseases), mitochondrial diseases, atherosclerosis, and aging. Concurrently scheduled with course C164. S/U or letter grading.


267. Nanoscience and Chemistry. (4) Lecture, four hours. Enforced requisites: courses 110A, 113A, 171, 172. Designed for advanced undergraduate and graduate students. Why nanoscience is important and in-
interesting and critical role of chemistry in nanoscience. Chemistry and physics of variety of synthetic inorganic nanostructures, including metallic nanostructures (nanowires, nanowires, nanowires, semiconductor nanostructures (quantum dots/rods, nanowires, plates), and carbon nanostructures (fullerene, nanotubes, graphene). Discussion of synthetic approaches, structures, and physical properties, as well as potential technological opportunities of each. Letter grading.

268. Biochemistry Research Seminar. (2) Seminar, two hours. Seminars presented by staff, outside speakers, postdoctoral fellows, and graduate students on topics of current biochemical research interest. May be repeated for credit. S/U or letter grading.


269B. Biocatalysis and Bioenergetics. (2) Lecture, five hours; discussion, two hours. Requisites: courses 153A, 153B, 153C, 156. A conceptual approach to understanding the role of enzymes in the catalysis of natural and synthetic reactions. Letter grading.


271. Advanced Topics in Inorganic Chemistry. (2 to 4) Lecture, two to four hours. Each offering encompasses one recognized specialty in inorganic chemistry. Grades reflect faculty members whose research interests comprise that specialty. S/U or letter grading.

C272. Advanced Inorganic Chemistry. (4) Lecture, three hours; discussion, one hour. Requisite: course 171 with grade of C– or better. Systematic approach to modern inorganic chemistry, structure and bonding of inorganic molecules and solids, structure/reactivity relationships, vibrational spectra of complexes, electronic structure of metal ion complexes; substitution, isomerization, and racemization reactions; stereochemistry; oxidation/reduction, free radical, polymerization, and photochemical reactions of inorganic species. May be concurrently scheduled with course C172. S/U or letter grading.

C276. Physical Methods in Inorganic Chemistry. (4) Lecture, three hours. Requisite: course C276A. Theory and applications of spectroscopic techniques, including magnetic resonance and vibrational and surface science methods, to inorganic compounds and materials. S/U or letter grading.


Inorganic Chemistry Student Seminar. (2) Seminar, two hours. Seminars presented by staff, outside speakers, postdoctoral fellows, and graduate students. May be repeated for credit. S/U or letter grading.

C280. Solid-State Chemistry. (4) Lecture, three hours. Requisite: course 171 with grade of C– or better. Survey of new materials and methods for their preparation and characterization, with emphasis on band theory and its relationship to chemical, optical, transport, and magnetic properties, leading to deeper understanding of these materials. Concurrently scheduled with courses C180. S/U or letter grading.

C281. Polymer Chemistry. (4) Lecture, three hours; discussion, one hour. Requisites: courses 30B, 110A. Synthesis of organic and inorganic macromolecules, thermodynamic and statistical mechanistic description of polymer formation and design, polymer characterization methods, and special topics such as conductive and biomedical polymers and polymeric reagents in synthesis. Concurrently scheduled with course C181. S/U or letter grading.

282. Introduction to Inorganic Chemistry Research. (2) Lecture, 90 minutes. Discussion of current research in inorganic chemistry, designed primarily for entering graduate inorganic chemistry students. S/U grading.


287. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

400. Safety in Chemical and Biochemical Research. (2) Lecture, two hours. Survey of safe laboratory practices for experimental research in organic, inorganic, and physical chemistry and biochemistry. Topics include laser safety, cryogenic hazards, high- and low-pressure experimentation, gas and carcinogen handling, chemical spills, fire extinguishing, and chemical disposal. S/U grading.

495. Teaching College Chemistry. (2) Seminar, two hours; discussion, two hours; 20 hours training during week prior to Fall Quarter. Course for teaching assistants designed to deal with problems and techniques of teaching college chemistry. S/U grading.

596. Directed Individual Study or Research. (2 to 16) Tutorial, to be arranged with faculty member who directs study or research. May be repeated for credit. S/U or letter grading.

597. Preparation for MS Comprehensive Examination or PhD Qualifying Examinations. (2 to 16) Tutorial, to be arranged. May be taken for maximum of 8 units. S/U grading.

598. Research for and Preparation of MS Thesis. (2 to 16) Tutorial, to be arranged. Each faculty member supervises research of MS students and holds research group meetings, seminars, and discussions with students. May be repeated for credit. S/U or letter grading.

599. Research for and Preparation of PhD Dissertation. (2 to 16) Tutorial, to be arranged. Each faculty member supervises research of PhD students and holds research group meetings, seminars, and discussions with students. May be repeated for credit. S/U or letter grading.
CÉSAR E. CHÁVEZ
DEPARTMENT OF
CHICANA/O AND
CENTRAL AMERICAN
STUDIES

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Overview
Addressing local, national, and transnational contexts, the Chicana/Chicano and Central American studies curriculum at UCLA explores race, class, gender, and sexuality paradigms as they have shaped the history of the field; as well as new directions in the study of Chicanas/Chicanos and Latinas/Latinos, including border and transnational studies; expressive arts; history, literature, and language of Americas; and labor, law, and policy studies.

Departmental faculty members, situated in one of the most diverse cities in the world, utilize Los Angeles as a laboratory for studying the social transformations taking place in California, the Southwest, and the U.S. The department provides students with the interdisciplinary research tools necessary to advance knowledge in the field, provide academic leadership, and serve community needs with academic resources.

Mission
The mission of the César E. Chávez Department of Chicana/o and Central American Studies is to train a new generation of scholars to research and analyze the life, history, and culture of Mexican-origin people within the U.S., as well as of other Latina/Latino and indigenous populations in the Americas.

Undergraduate Major
Chicana and Chicano Studies BA

The BA program in Chicana and Chicano Studies is committed to the practice of different forms of scholarship and pedagogy and to the promotion of critical thinking about such issues as gender, sexuality, social action, language, race, ethnicity, class, assimilation/acculturation paradigms, and indigenous traditions. The literary and visual arts often function as vehicles for social change and creative empowerment, and so they constitute one focus of the curriculum, that aims to strike a balance among the social sciences, humanities, arts, and the professions. The major prepares students for graduate education in academic and professional fields and for a variety of positions that involve community and social service in the U.S. and abroad.

Capstone Program
The Chicana and Chicano Studies major is a designated capstone program. Students have options for completing a senior honors thesis, individual research, or senior project under the direction of a faculty member. Alternately, students may elect to complete an upper-division course that includes additional coursework culminating in completion of a capstone paper or creative project. Through their capstone work, students are expected to demonstrate working knowledge of the major findings and methods of the disciplines from which they have drawn their Chicana and Chicano studies coursework, show their capacities for conceiving and executing a research or creative project on a self-selected topic as well as identifying and evaluating relevant documentation pertaining to that project, demonstrate appropriate levels of scholarly discourse on their selected topic, and develop greater capacity to be of lifelong service to the Chicana/Chicano and Latina/ Latino community and to global society in the tradition of César Chávez and scholar activist exemplars.

Learning Outcomes
The Chicana and Chicano Studies major has the following learning outcomes:

- Demonstrated skills and expertise, including research, analysis, and writing
- Demonstrated familiarity and competence in a range of interdisciplinary methodologies and approaches
- Demonstrated ability to identify and analyze appropriate primary and secondary sources, material evidence, and other primary documents
- Demonstrated mastery and integration of knowledge and learning abilities
- Demonstrated ability to use knowledge gained in classroom to conceive and execute projects
- Demonstrated broad knowledge of fundamentals acquired through coursework, as informed by race, class, gender, and sexuality paradigms
- Conception and execution of an original research project that identifies and engages with a topic relevant to the student’s area of concentration
- Presentation of work to peers for discussion and critique

Entry to the Major

Transfer Students
Transfer applicants to the Chicana and Chicano Studies major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one interdisciplinary Chicana/Chicano history and culture course, one interdisciplinary Chicana/Chicano social structure and contemporary conditions course, and five quarter terms of Spanish.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major

Required: Chicana/o and Central American Studies 10A, 10B, Spanish 5 or equivalent.

The Major

Required: A total of 11 upper-division courses, including Chicana/o and Central American Studies 101; one service learning course from 100XP or M170XP or from the approved list available in the department office each term; two related study courses from the approved list of courses outside the department; related study includes courses that provide a comparative perspective to Chicana and Chicano studies and/or a contextualization of Chicana and Chicano communities in the world; one advanced seminar course from 191 or another course by petition to the department chair; and a concentration of four courses in one area listed below and two courses in a second area:
Border and Transnational Studies: Chicana/o and Central American Studies CM110, 120, M124, M125, M126, M132, 143, M144, CM147, 151, 152, 153A, M154, M155A, M156A, 163, 176, 184, 191


Honors Program
The proposal, research, data collection, analysis, and writing of the thesis (or the creative equivalent to this process) take place in Chicana/o and Central American Studies 198A, 198B, and 198C, which may not be applied toward the major requirements. An honors thesis of at least 30 pages or a significant creative project is required.

Optional Multidisciplinary Senior Thesis
Chicana and Chicano Studies majors have the option during their senior year to enroll in two 199 courses with the intention of producing an undergraduate thesis. The first term includes thesis conceptualization and formulation, along with preliminary data collection for the thesis. The second term entails completion of the data collection, analysis of the data, and writing of the thesis. Enrollment in the two 199 courses is with the advice and consent of a faculty member.

Policies
The Major
No more than 8 units of 188, 191, and 199 courses may be applied toward the major; enrollment in the courses must be approved in writing by the department chair. Each major course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better.

Honors Program
The Chicana and Chicano Studies honors program provides the opportunity for motivated and dedicated students to undertake a year-long research or creative project with the guidance and supervision of a faculty member. The program is open to all juniors and seniors who have a 3.5 grade-point average in the major, a cumulative GPA of 3.0 or better, and completed 90 or more total units, including Chicana/o and Central American Studies 10A, 10B, 101, and one course from 89, 89HC, 189, or 189HC.

Undergraduate Minors
Central American Studies Minor
Admission
To enter the minor, students must have an overall grade-point average of 2.0 or better.

The Minor
Required Lower-Division Course (5 units): Chicana/o and Central American Studies 20 with a grade of C or better.


Policies
A maximum of 4 units of special studies courses (197, 199) approved by the adviser may be applied toward the minor.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better.

Chicana and Chicano Studies MA, PhD
Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Chicana/o and Central American Studies
Lower-Division Courses
10A. Introduction to Chicana/Chicano Studies: History and Culture. (3) (Formerly numbered Chicana and Chicano Studies 10A.) Lecture, three hours; discussion, one hour. Interdisciplinary survey of diverse historical experiences, cultural factors, and ethnic/racial paradigms, including indigenousness, gender, sexuality, language, and borders, that help shape Chicana/Chicano identities. Emphasis on critical reading and writing skills. Letter grading.

10B. Introduction to Chicana/Chicano Studies: Social Structure and Contemporary Conditions. (3) (Formerly numbered Chicana and Chicano Studies 10B.) Lecture, three hours; discussion, one hour. Multidisciplinary examination of representation, ideologies, and material conditions of Chicanas/Chicanos, including colonialism, race, labor, immigration, pov- erty, assimilation, and patriarchy. Emphasis on critical reading and writing skills. Letter grading.

118. Leadership and Student-Initiated Retention. (2) (Formerly numbered Chicana/Chicano Studies and Chicana and Chicano Studies 118.) Same as African American Studies M118, American Indian Studies M118, and Asian American Studies M118.) Seminar, two hours. Limited to freshmen/sophomores/first-year transfer students. Not open for credit to students with credit for course M118. Exploration of issues in retention at UCLA through lens of student-initiated and student-run programs, efforts, activities, and services. Focus on populations with his-
Upper-Division Courses

100XP. Barrio Organization and Service Learning. (Formerly numbered 100SLS) Seminar; two hours; discussion; two hours; field placement; six hours. Limited to juniors/seniors. Service learning placement in community-based organization, labor union, or service-oriented nonprofit organization. Study of role that these organizations play in improvement and change of Chicano/Chicana communities. Students meet on regular basis with instructors and provide periodic reports of their experience. Letter grading.


M102. Mexican Americans and Schools. (Formerly numbered Chicana and Chicano Studies M102) Seminar; two hours. Discussion, two hours. Theoretical and empirical overview of Chicana/Chicano educational issues in U.S.; special emphasis on desegregating effects of race, gender, class, and migrant status on Chicana and Chicano educational attainment and achievement. Examination of how historical, social, political, and economic forces impact Chicana/Chicano educational experience. P/NP or letter grading.

M103D. Contemporary Chicano Theater: Beginning of Chicano Theater Movement. (Formerly numbered Chicana and Chicano Studies M103D) Seminar; three hours. Analysis and discussion of historical and political events from 1965 to 1973, as well as social change that led to emergence of Chicano theater. Letter grading.

M103G. Origins and Evolution of Chicano Theater. (Formerly numbered Chicana and Chicano Studies M103G) Lecture, three hours. Designed for seniors/juniors. Exploration of development of Chicano theater from its beginning in legends and rituals of ancient Mexico to work of Luis Valdez (late 1960s). P/NP or letter grading.

M105B. Chicana/Chicano Literature from Mexican Revolution (1920), including oral and written testimonios, folkloric narratives, poetry, and dramatic plays, autobiographical texts, and ensemble devised works that reflect changing nature of Latina/o/x cultural landscape. Introduction to basic elements of Chicana/Chicano/literature and its impact on cultural production. P/NP or letter grading.

M105C. Origins and Evolution of Chicano Theater. (Formerly numbered Chicana and Chicano Studies M103C) (Same as Theater M105C) Seminar, three hours. Designed for seniors/juniors. Exploration of development of Chicano theater from its beginning in legends and rituals of ancient Mexico to work of Luis Valdez (late 1960s). P/NP or letter grading.

M105D. Introduction to Latino/Latina Literature. (Formerly numbered Chicana and Chicano Studies M105D) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3. Variable topics course to give students broad introduction to issues and themes in Chicana/Chicana and Chicano literature. Topics may include border, immigration, revolution, language, gender, sexuality, and diaspora, among others. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M105E. Studies in Chicana/Chicana and/or Latina/Latino Literature. (Formerly numbered Chicana and Chicano Studies 105E) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3. Specialized studies in Chicana/Chicana and/or Latina/Latino literature. In-depth study of various topics related to Chicana/Chicana communities in Southern California, including Chicana/Chicana visions of Los Angeles; immigration, migration, and exile; autobiography and historical change; Chicana/Chicana journalism; and labor and literature. Service learning component includes minimum of 20 hours of meaningful work with agency involved with Chicana/Chicana and/or Latina/Latina community and selected by instructor. P/NP or letter grading.

M105QP. Seminar: Chicana/Chicana and/or Latina/Latina Literature—Community-Engaged Learning. (Formerly numbered M105SL) (Same as English M105XP) Seminar, three hours; discussion, one hour; field placement, three hours. Enforced requisite: English Composition 3. Specialized studies in Chicana/Chicana and/or Latina/Latina literature. In-depth study of various topics related to Chicana/Chicana communities in Southern California, including Chicana/Chicana visions of Los Angeles; immigration, migration, and exile; autobiography and historical change; Chicana/Chicana journalism; and labor and literature. Service learning component includes minimum of 20 hours of meaningful work with agency involved with Chicana/Chicana and/or Latina/Latina community and selected by instructor. P/NP or letter grading.

M106B. Diversity in Aging: Roles of Gender and Ethnicity. (4) (Formerly numbered Chicana and Chicano Studies M106B) (Same as Gender Studies M104C, Gerontology and Aging Affairs M151, and Social Welfare M104C) Lecture, four hours. Exploration of complexity of variables related to diversity of aging population and variability in aging process. Examination of gender and ethnicity within context of both physical and psychological aging. Disciplinary perspective of utilizing faculty from variety of fields to address issues of diversity. Letter grading.

C107. Latina/Latino Families in U.S. (4) (Formerly numbered Chicana and Chicano Studies M107) Lecture, four hours; discussion, one hour (when scheduled). Study of how intersections of race, class, and gender help shape experiences of Latina/Latino families in U.S. with particular focus on Mexican and Central American families in U.S., with special emphasis on immigrants, and analysis of how race, class, and gender together play important roles in shaping these experiences. Discussion of roles of structural and institutional inequality in each context. Concurrently scheduled with course C212. P/NP or letter grading.

M108A. Music of Latin America: Mexico, Central America, and Caribbean Islands. (3) (Formerly numbered Chicana and Chicano Studies M108A) (Same as Ethnomusicology M108A) Lecture, four hours; discussion, one hour. Survey of traditional and contemporary musical culture. P/NP or letter grading.


CM110. Chicana Feminism. (4) (Formerly numbered Chicana and Chicano Studies CM110) (Same as Gender Studies CM132A) Lecture, four hours. Enforced prerequisites: courses 4 and 10 or Gender Studies 10. Examination of theories and practices of women who identify as Chicana feminist. Analysis of writings of Chicana writers who do not identify as feminist but whose practices attend to gender inequities faced by Chicanas both within Chicana/Chicano community and dominant society. Attention to Anglo-European and Third World women. Concurrently scheduled with course 10/414. P/NP or letter grading.

111. Chicana/Chicano and Latino Intellectual Traditions. (5) (Formerly numbered Chicana and Chicano Studies 111) Lecture, five hours. General view of philosophical, cultural, and social thought as well as intellectual accomplishments of writers, intellectuals and cultural/political strategists, and as definers of (national) identity, social reality, and struggles of liberation. Letter grading.

113. Day of the Dead Ritual. (4) (Formerly numbered Chicana and Chicano Studies 113) Lecture, four hours; discussion, one hour (when scheduled). Introduction to philosophical roots and evolution of traditional celebration of Day of the Dead ritual. Contemplation of indigenous, Spanish, Mexican, Chicano, and other influences and manifestations of this ritual. Special attention to Nahua language and worldview related to this ancient Mexican religious calendar system. Emphasis on critical thinking about what is observed in altars today and impact globalization has on tradition. P/NP or letter grading.

118. Immigration and Chicano Community. (4) (Formerly numbered Chicana and Chicano Studies 118) (Same as Labor Studies M121) Lecture, four hours. Exploration of issues in outreach and retention of students in higher education, especially through student-initiated programs, efforts, activities, and services, with focus on UCLA as case. May be repeated twice for credit. Letter grading.


120. Immigration and Chicano Community. (4) (Formerly numbered Chicana and Chicano Studies 120) Lecture, three hours. Discussion on relationship between international immigration and development of Chicano/Chicano community. Examination of U.S. immigration policies and their effects on Mexican-origin population and other Latin American immigrants. P/NP or letter grading.

121. Issues in Latina/Latino Poverty: Mexican and Central American Voices from Los Angeles. (4) (Formerly numbered Chicana and Chicano Studies M121) (Same as Labor Studies M121 and Urban Planning M140) Lecture, four hours. Examination of key issues (work, housing, and neighborhoods) in urban poverty, with particular focus on Mexican and Central American immigrant populations in Los Angeles. Exploration of major theoretical models that explain urban poverty and application of them in comparative context while exploring different experiences of Mexican and Central American immigrants. Social conditions and forces that help us understand lives of poor people in comparative context while looking at differences between two major Latino-origin populations in Los Angeles. Critical analysis of new forms of urban poverty in contemporary American society. Letter grading.

M122. Planning Issues in Latina/Latino Communities. (4) (Formerly numbered Chicana and Chicano Studies M122) (Same as Labor Studies M117, and Urban Planning M117) Lecture, four hours. Examination of how Latina and Latino communities and economic development interact, role of assets in community development, and unique synergies and pitfalls that enable or disable communities from developing to their potential. How to strengthen and how to preserve community resources in Pico-Union neighborhood in Los Angeles. Research entails historical analysis, reviews, interviews, electronic asset mapping, web-based data processing and analysis, oral and written reports, and cyber-based research. Letter grading.

123. Applied Research Methods in Latina/Latino Communities. (4) (Formerly numbered Chicana and Chicano Studies M123) Lecture, four hours. Critical introduction to U.S. immigration policies and politics, and the processes and impacts on Latina/Latino communities. Examination of root causes of Latin American migration; federal, state, and local immigration lawmaking; and how race, gender, and sexuality impact and are impacted by immigration policies (e.g., legalization, border militarization, deportation) and policies (from voting to activism). P/NP or letter grading.

M125. U.S./Mexico Relations. (4) (Formerly numbered Chicana and Chicano Studies M125) (Same as Labor Studies M125) Lecture, four hours. Examination of complex dynamics in relationship between Mexico and U.S., using policy economic approach to study of issues such as international trade, advanced industrial economies and developing countries. P/NP or letter grading.

M126. Politics of Crisis: Migration, Identity, and Religion. (4) (Formerly numbered Chicana and Chicano Studies M126) (Same as Honors Collegium M145) Lecture, three hours. Examination of individual and collective religious response of Latin Americans and Latinas/Latinos in U.S. to dislocations, displacements, and fragmentation produced by conquest, colonization, underdevelopment, globalization, and migration. Letter grading.

M127. Farmworker Movements, Social Justice, and United Farm Workers. (4) (Formerly numbered Chicana and Chicano Studies M127) (Same as Labor Studies M127) Lecture, four hours. Designed for juniors/seniors. Introduction to history and organization of labor movement in U.S. and North America. Discussion of race, class, and gender issues


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raised within movement, and various strategies for social change and economic equity pursued through organized labor and other means. Letter grading.

M128B. Class and Gender in Care Work. (4) (Same as African American Studies M128B, Conflict and Clinic Studies M140C, and Labor Studies M143.) Lecture, three hours; discussion, one hour. Examination of how gender, race, class, and citizenship status shape domestic labor. In situ analysis of domestic workers' experiences through film, fiction, and traditional scholarship. Investigation of why domestic work is in high demand, who employs domestic workers, and why immigration is used to make up for a large percentage of this workforce. Exploration of how domestic workers navigate pay and working conditions, and how they build community and family networks in shadows of their privileged employers. P/NP or letter grading.

M128C. Common Thread: Garment Workers Past, Present, Future. (4) (Same as Gender Studies M169 and Labor Studies M108.) Lecture, three hours. Study blends frameworks from economics, labor history, and ethnic studies to offer in-depth exploration of lives and experiences of garment workers from early 19th century to present. In contrast to traditional narratives, study looks at workers—majority of whom are immigrant women—at vanguard of U.S. labor movement, showing how they pioneered new forms of worker education and other social welfare programs. Garment workers stood in fight for women's, civil, and immigrant rights. Exploration of garment work relationship to American culture, tracing how sweatshop became symbol of worker exploitation, how popular culture and fashion trends impacted lived realities of workers in those shops, and how racial and gendered expectations shaped public perceptions of garment workers. By doing so, study reveals garment work to be central thread that ties together histories of garment workers and domestic workers, and becomes leaders in fight for women's, civil, and immigrant rights. Letter grading.

M130. Community-Engaged Research Methods. (4) (Formerly numbered M129.) (Same as Labor Studies M129 and Public Affairs M117C.) Lecture, four hours. Students are trained in designing, drafting, piloting, and administering new survey focused on transitions to adulthood. Written in collaboration with labor and community partners serving Latino, Asian Americans and Pacific Islanders, Black, and Indigenous youth and low-wage workers, this survey gathers data on workforce development, labor rights, education, health, mental health, and civic engagement of young people residing in Black, Indigenous, and people of color communities. Investigation of historical development of racial statistics, role of racial statistics in contemporary life, and critical quantitative science. Includes testing questions on racial identity and attitudes, gender, identity development, labor rights, health, and other topics determined by labor and community partners. P/NP or letter grading.

M129B. Participatory Action Research on Youth Organizing for Racial Justice. (4) (Same as African American Studies M129B, American Indian Studies M129, Asian American Studies M128, and Public Affairs M122.) Lecture, four hours. Students are trained to conduct participatory research on youth organizing across California. Students gain historical and theoretical background on multi-racial and inclusive organizing. Students learn how to collect and analyze data, design surveys and organizing initiatives. Study and critical analysis of youth organizing strategies. Weekly training modules on data collection and grassroots organizing strategies that prepare students for internships in researching youth organizing data serving Asian American, Black, Latinx, and Native American communities. P/NP or letter grading.


131. Barrio Popular Culture. (4) (Formerly numbered Chicana and Chicano Studies 131.) Lecture, three hours. Construction of model by which to organize study of barrio as metaphor for community. Examination of beliefs, myths, and values of Chicana/Chicano culture and representations in icons, heroes, legends, stereotypes, and popular art forms throughout history. Film, video, music, mass media, and oral history. Letter grading.

M132. Border Consciousness. (4) (Formerly numbered Chicana and Chicano Studies M132.) (Same as Lesbian, Gay, Bisexual, Transgender, and Queer Studies M132.) Lecture, three hours; discussion, one hour (when scheduled). Investigation through history, popular culture, and mass media of bilingual and bicultural identities produced by geographical and cultural space between Mexico and U.S. Special attention to border consciousness as site of conflict and resistance. Letter grading.

M133. Chicana Lesbian Literature. (4) (Formerly numbered Chicana and Chicano Studies M133.) (Same as Gender Studies M133 and Lesbian, Gay, Bisexual, Transgender, and Queer Studies M133.) Lecture, four hours. Exploration of intersection of radical First and Third World feminism, homo/bi sexuality and its relationship to Chicana identity, representation of lesbianism in Chicana literature, meaning of familia in Chicana lesbian lives, and impact of Chicana lesbian theory on Chicana/chicano studies. Letter grading.

M134XP. Engaging Immigrants and Their Families. (5) (Formerly numbered Chicana and Chicano Studies M134XP.) (Same as Community Engagement and Social Change M134XP and Labor Studies M134XP.) Lecture, two hours; discussion, two hours; field placement, two hours. Survey and exploration of immigrant landscapes in Los Angeles—truly global city acting in part to buffer, settle, and incorporate immigrants in daily life. Focus on civil society to explore multiple forms of interventions and impacts that take place in informal settings. Service learning partnerships focus on organizations addressing immigration concerns. Letter grading.

CM135. Bilingual Writing Workshop. (4) (Formerly numbered Chicana and Chicano Studies CM135.) (Same as Gender Studies 135, Lesbian, Gay, Bisexual, Transgender, and Queer Studies 135.) Seminar, four hours. Limited to juniors/seniors. Writing sample required; access to course web page mandatory; not open to students with credit for course 27. Study of written and spoken language in terms of diversity, social, and political contours of suburbs in Los Angeles; borders in promoting multiethnic and multiracial communities. Letter grading.

M136. Censored! Art on Trial. (4) (Formerly numbered Chicana and Chicano Studies M136.) (Same as Lesbian, Gay, Bisexual, Transgender, and Queer Studies M136.) Lecture, four hours. Limited to juniors/seniors. Writing sample required; access to course web page mandatory; not open to students with credit for course 27. Film and video, music, mass media, and oral history. Letter grading.

M137. Maya Art and Architecture. (4) (Formerly numbered Chicana and Chicano Studies M137.) (Same as Art History CM139A.) Lecture, three hours. Requisite: course 27. Study of art of selected Maya-speaking cultures of southern Mesoamerica from circa 2000 BC to present, with particular emphasis focusing on barrio as metaphor for community. Examination of beliefs, myths, and values of Chicana/Chicano culture and representations in icons, heroes, legends, stereotypes, and popular art forms throughout history. Letter grading.

M138. Space, Place, and Race. (4) Formerly numbered Chicana and Chicano Studies 138A.) Seminar, four hours. Investigation of theories of spatial formations and their importance for social justice in the U.S. Theories of space and place from interdiscipli- nary list of readings to investigate ways racial formation is embedded in property, maps, streets, and borders. Themes include introduction to spatial theories of settler colonialism, critical cartography, boundaries, and transgression. How space has shaped racial formation in multiracial places. Investigation of ways space, place, and race operate maps, built environ- ment, and multimedia world. P/NP or letter grading.

M138B. Barrio Suburbanism. (4) Formerly numbered Chicana and Chicano Studies 138B.) Seminar, four hours. Examination of barrio suburbanism, in which Chicana/o and Latinx arts, history, and culture emerged as a new form of impact- working- and middle-class subburbs to reshape geog- raphy of metropolitan centers. Building upon urban studies of roles of public policy and planning in forma- tion of suburbs, this course examines barrio suburbanism as multi-racial and regional context. Points of intersection and conflict that illuminate how Chicana/Chicano and Latina/Latinos have impacted economic, social, and political contours of suburbs in Los An- geles metropolitan region. Major themes include urban policy, planning history, mapping, immigration, relating to race and ethnicity, and pursuit of regional democ- racy. P/NP or letter grading.

M139. Topics in Chicana/Chicano and/or Latina/ Latino Literature. (5) Formerly numbered Chicana and Chicano Studies M139.) (Same as English M139.) Seminar, three or four hours. Enforced requirement: English Composition 3. Variable specialized studies course in Chicana/Chicano and/or Latina/ Latino literature. Topics may include labor and literature; Chicana/Chicano visions of Los Angeles; immi- gration, migration, and exile; autobiography and his- torical change; Chicana/Chicano journalism; literary New Mexico; specific literary genres. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M140A. Diasporic Nonfiction: Media Engagements with Memory and Displacement I. (4) (Formerly numbered Chicana and Chicano Studies M140A) Seminar, three or four hours. Video production course, with emphasis on au- tobiographical, critical, and performance-based modes of nonfiction media making, drawing on prac- tices of diasporic filmmakers who have grappled with suppressed collective memories of displacement, trauma, exile, and migration. What does it mean to make videos about memory in places where direct cues to remembering cannot be seen? Introduction to concepts from films and readings. Production assign- ments and screenings, with focus on questions of how to represent history, memory, family dynamics, and identity, and political contours of suburbs in Los An- geles region. Progress grading (credit to be given only on completion of course M140B).

M140B. Diasporic Nonfiction: Media Engagements with Memory and Displacement II. (4) Formerly numbered Chicana and Chicano Studies M140B. Seminar, three hours. Enforced requirement: course M140A. Stu- dents engage with works on diaspora issues or experiences central to everyday lives of members of diasporic peoples. They learn to propose, record, edit, and distribute one socially engaged non- fiction video and a text exploring themes from the course M140A in writing voiceover, choreographing dances, designing public performances, interviewing, and recording everyday life. P/NP or letter grading.
C141. Chicana and Latin American Women’s Narrative. (4) (Formerly numbered Chicana and Chicano Studies C141.) Lecture, four hours. Preparation: reading knowledge of Spanish (level 4). Analysis, comparisons, and discussion of narrative literary production of U.S. Chicanas writers and their Latin American counterparts in English and Spanish, with particular focus on how each group deals with gender, ethnic, and class issues. Concurrently scheduled with course C251. Letter grading.

142. Mesoamerican Literatures. (4) (Formerly numbered Chicana and Chicano Studies C142.) Lecture, four hours; discussion, one hour (when scheduled). Preparation: reading knowledge of Spanish, Maya, Aztec, and Teotihuacan epigraphic knowledge. Survey of premises of Mesoamerican literatures, including myths, lyrics, poetry, religious celebrations, rituals, and drama, specifically of Aztec and Mayan peoples prior to European contact. Letter grading.

143. Mestizaje: History of Diverse Racial/Cultural Roots of Mexico. (4) (Formerly numbered Chicana and Chicano Studies 143C.) Lecture, four hours; discussion, one hour (when scheduled). Comparative examination of diverse racial and cultural roots of Chicanas and Chicanos. Utilizing theoretical frameworks of mestizaje, Actlán, indigenismo, La Raza Cósmica, and la tercera cultura, an examination of some important figures who have contributed to formation of Mexican national culture. Development of race relations in Mexico during colonial period, with focus on analysis of Nahua, mestizo, Chichimec, and Aztec-Chemec population. Analysis of Asian immigration to Mexico and California during national period, specifically examination of migration and adaptation experiences of Chinese, Japanese, and Punjabi-Indian immigrants. P/N or letter grading.

M143B. Afro-Latina/o Experience(s) in U.S. (4) (Formerly numbered 143B.) (Same as African American Studies M143B.) Lecture, four hours; discussion, one hour (when scheduled). Focus on Afro-Latina/o experience in U.S. through exploration of its historical roots and contemporary forms. How colorism in Latin America affects Afro-Latina/o identity. Regional differences and different types of Afro-Latina/os that include Blaxicans, Nuyoricanos, Afro-Cubans, and others are taken into account. Discussion of themes that include feminism, politics, culture, music, and identities in order to obtain comprehensive picture of Afro-Latina/os in U.S. yesterday and today. P/N or letter grading.

M144. Women’s Movement in Latin America. (4) (Formerly numbered Chicana and Chicano Studies M144.) (Same as Gender Studies C144 and Labor Studies M144.) Lecture, four hours. Course on women’s movements and feminism in Latin America and Caribbean. Historical and contemporary social movements and locations from which women have launched political and gender struggles. Discussion of forms of feminism and women’s consciousness that have emerged out of indigenous rights movements, environmental struggles, labor movements, Christian-based communities, peasant and rural organizing, and new social movements that are concerned with race, sexuality, feminism, and human rights. Through comparative study of women’s movements in diversity of political systems as well as national and transnational arenas, students gain understanding of historical contexts and political discourses that give rise to women’s resistance, as well as major debates in field of study. P/N or letter grading.

145B. Literature of Chicana/Chicano Movement. (4) (Formerly numbered M145B.) Lecture, three hours. Examination of Chicana and Chicano/Chicana Chicano movement covering period from first manifestations of Chicano artistic production in 1965 with El Teatro Campesino through rise of women’s writing, including work by Cherie Moraga (1983), Helena Maria Viramontes (1985), and Sandra Cisneros (1991). P/N or letter grading.

146. Chicano Narrative. (4) (Formerly numbered M146.) Lecture, four hours. Introduction to major Chicano narrative genres—novel, romance, satire, autobiography, cronicon/semblanza, Chicana detective novel, and Chicana solidarity fiction. Texts examined within their own geographical, cultural, and historical contexts, as well as within history of narrative forms. P/N or letter grading.

CM147. Transnational Women’s Organizing in America. (4) (Formerly named Chicana and Chicano Studies CM147.) (Same as Gender Studies CM147C.) Lecture, four hours. Feminist theories of transnational organizing. Examination of gender and race relations inijiexemplary local contexts and their transnational implications. Focus on economics, gender, race, class, and ethnic oppression, and political contexts that give rise to women’s resistance. (Formerly numbered Chicana and Chicano Studies CM147.) Lecture, four hours. Focus on race and gender influence global economics and their gendered implications. Lecture, three hours. Preparation: reading knowledge of Spanish, Maya, Aztec, and Teotihuacan epigraphic knowledge. Survey of premises of Mesoamerican literatures, including myths, lyrics, poetry, religious celebrations, rituals, and drama, specifically of Aztec and Mayan peoples prior to European contact. Letter grading.

149. Gendered Politics and Chicana/Latina Political Participation. (4) (Formerly numbered Chicana and Chicano Studies 149.) Lecture, four hours. Examination of Chicanas and Latinas as participants, organizers, and leaders in communities, workplaces, labor unions, and government. Survey of Chicanas/Latinas in politics and as policymakers in appointed and elected offices. Analysis of gendering of politics and political behavior. Letter grading.

150. Affirmative Action: History and Politics. (4) (Formerly numbered Chicana and Chicano Studies 150.) Lecture, four hours; discussion, one hour (when scheduled). Historical examination of political economic context in which affirmative action policies and programs were conceived and implemented. Review of impact on Chicanas/Chicanos, Latinas/Latinos, and other communities. Specific analysis of university admissions, job contracting practices, and state initiatives. Letter grading.

151. Human Rights in Americas. (4) (Formerly numbered Chicana and Chicano Studies 151.) Lecture, four hours. International human rights laws in North, Central, and South America, foreign policy in context of historical, political, social, and legal issues and court decisions involving U.S. and its role and relations with nation-states and governments. Historical and contemporary development of regional and international law, institutions, law, and norms related to promotion and protection of human rights. P/N or letter grading.

152. Disposable People: U.S. Deportation and Repatriation Campaigns. (4) (Formerly numbered Chicana and Chicano Studies 152.) Seminar, four hours. Examination of U.S. deportation campaigns targeted at Mexicans and Mexican American, Chicanas, and Chicanos who work outside U.S., workers, and U.S.-born citizens. Addresses various periods of large-scale, highly-organized deportation and repatriation efforts including Great Depression, Bracero Program, Bracero Setback in 1950s, Central American Minor (CAMA) program, Deferred Action for Childhood Arrivals (DACA), and Temporary Protected Status (TPS). P/N or letter grading.

153A. Central Americans in U.S. (4) ( Formerly numbered Chicana and Chicano Studies 153A.) Lecture, four hours. Interdisciplinary survey of social, historical, political, economic, educational, and cultural experiences of Central American immigrants and their children in U.S. Introduction to several contemporary Central American communities. Focus on experiences and issues in U.S. Central American communities. With focus mostly on Guatemalan, Honduran, and Salvadoran immigrants, exploration of social structures that constrain individuals, as well as strategies and behaviors immigrants and their communities have taken to establish their presence and incorporate into U.S. society. How Central American identity has been constructed and how this identity intersects with race, gender, and legal status. P/N or letter grading.

153B. Central American Racial Constructions. (4) (Formerly numbered Chicana and Chicano Studies 153B.) Lecture, four hours. Historical, political, economic, and social roots of race, gender, national and transnational ideologies, and racial contingencies that shape immigrant experiences and disidentifications in and/or in relation to U.S. P/N or letter grading.

153C. Migrating U.S./Central American Cultural Production. (4) (Formerly numbered Chicana and Chicano Studies 153C.) Lecture, four hours. Exploration of culture making through memory, legends, counter-narratives, signs, symbols, foods, ways, and sounds as migratory processes that are transnational, transgenerational, translocal, and as part of U.S. Central American, Latina/Latino, and migrant experience within, across, and among cultural groups. P/N or letter grading.

153D. U.S. Central American Narratives. (4) (Formerly numbered Chicana and Chicano Studies 153D.) Lecture, four hours. Examination of textual narratives and cultural production by communities that have lived collectively deployed from Central America beginning with civil wars of late 1960s into late 1990s. Texts are read beyond confines of nation-state as narratives and subjectivities in exile. As part of stories of immigrants, these narratives contribute to making of U.S. Central American diasporas, and these communities making home in some other place than original or (re)-imagined homeland. P/N or letter grading.

154. Contemporary Issues among Chicanas. (4) (Formerly numbered Chicana and Chicano Studies M154.) (Same as Gender Studies M132B.) Lecture, two and one half hours. Requirements: Gender Studies 10. Overview of conditions facing women of U.S., including issues on family, immigration, reproduction, employment conditions. Comparative analysis with other Latinas. P/N or letter grading.

155A. Latinos in U.S. (4) (Formerly numbered Chicana and Chicano Studies M155A.) (Same as Sociology M155.) Lecture, three hours; discussion, one hour. Designed for juniors/seniors. Exploration of history and social conditions of Latinos in Los Angeles as well as nationally, with focus on their location in larger social structure and on comparisons with other minority groups. Topics include migration, family, education, and work issues. P/N or letter grading.

155B. U.S. Latino Politics. (5) (Formerly numbered Chicana and Chicano Studies M155B.) (Same as Political Science M181B) Lecture, four hours; discussion, one hour (when scheduled). Examination of history and contemporary role of Latinos in U.S. political system. Topics include historical analysis of Latino immigration and migration; civil rights movements; increases in citizenship, registration, and voting in 1980s and 1990s; new wave of anti-immigrant attitudes; Development, Relief, and Education for Alien Minors (DREAM) Act and subsequent DREAMer movement, and recent conditions facing Chicanos today; discussion of role of Latino vote in recent presidential elections. P/N or letter grading.

156A. Immigrant Rights, Labor, and Higher Education. (4) (Formerly numbered Chicana and Chicano Studies M156A.) (Same as Asian American Studies M166A and Labor Studies M166A.) Lecture, three hours; discussion, one hour. New immigrant rights movement, with particular attention to labor and higher education. New wave of immigration and immigrant rights movement and examination of coalition efforts between labor movement and immigrant rights movement nationally and locally. Special focus on conditions facing students at higher education, challenges facing undocumented immigrant students, and legislative and policy issues that have emerged. Students conduct oral histories, family histories, research on immigration and immigrant rights,
write poetry and spoken word about immigrant experience, and work to collectively develop student publication on immigrant students in higher education. P/NP or letter grading.

M156B. Research on Immigration Rights, Labor, and Higher Education. (4) (Formerly numbered Chicana and Chicano Studies M156B.) (Same as Asian American Studies M166B and Labor Studies M166B.) Seminar, four hours. Enforced requisite: course M156A. Exploration of research conducted by students in course M156A involving oral histories, research on immigration/labor/higher education, and evaluation of legislation and legal issues impacting undocumented students. Letter grading.

M156C. Research on Immigrant Students and Higher Education. (4) (Formerly numbered Chicana and Chicano Studies M156C.) (Same as Asian American Studies M156C.) Seminar, four hours. Enforced requisite: courses M156A and M156B. Expansion of research conducted by students in courses M156A and M156B involving oral histories, research, and legal issues impacting undocumented students. Letter grading.

M157. Chicano Movement and Its Political Legacies. (4) (Formerly numbered Chicana and Chicano Studies 157.) Lecture, four hours. Collective examination of Chicano Movement of 1960s and 1970s and analysis of its political legacies. Grounded in historiographic inquiry and social movement theory, investigation of mobilization of diverse sectors of the movimiento, including students, youth, community activists, and women. Exploration of myriad issues and struggles that compelled Chicanas/Chicanos to resist such as land and labor rights, education, anti-war movement, community autonomy, police brutality, political inclusion, cultural recovery, race, sexism, and class exploitation. Investigation of diverse ideologies, debates, and legacies of Chicano Movement through examination of Chicana/Chicano movements for organizing, modes, strategies, innovations, challenges, and articulation of new political subjectivities. P/NP or letter grading.

M158. Chicana Historiography. (4) (Formerly numbered Chicana and Chicano Studies M158A.) (Same as Gender Studies M157 and History M151D.) Lecture, four hours. Examination of Chicana historiography, looking closely at how practice of writing of history has placed Chicana narratives in a particular narrative. Latin American feminist approaches to study of history, revisiting of specific historical periods and moments such as Spanish Conquest, Mexican Period, American Conquest, and U.S. military presence, and Chicano Movement to excavate untold stories about women’s participation in and contribution to making of Chicana and Chicano history. P/NP or letter grading.

M159A. History of Chicano Peoples. (4) (Formerly numbered Chicana and Chicano Studies M159A.) (Same as History M151A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey lecture course on historical development of Mexican (Chicana) community and people of Mexican descent in U.S. through 20th century, with special focus on labor and politics. Provides integrated understanding of change over time in Mexican/Latino community and policy issues affecting community. Within framework of domination and resistance, discussion deals with social structure, economy, labor, culture, political organization, conflict, and ideology. Development of Chicano Movement and current occurrence occurring both in U.S. and Mexico. Lecture, special presentations, reading assignments, written examinations, library and field research, and submission of paper. P/NP or letter grading.

M159B. History of Chicano Peoples. (4) (Formerly numbered Chicana and Chicano Studies M159B.) (Same as History M151B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey lecture course on historical development of Mexican (Chicana) community and people of Mexican descent in U.S. through 20th century, with special focus on labor and politics. Provides integrated understanding of change over time in Mexican/Latino community and policy issues affecting community. Within framework of domination and resistance, discussion deals with social structure, economy, labor, culture, political organization, conflict, and ideology. Development of Chicano Movement and current occurrence occurring both in U.S. and Mexico. Lecture, special presentations, reading assignments, written examinations, library and field research, and submission of paper. P/NP or letter grading.

156. Introduction to Chicana/Chicano Speech in American Society. (4) (Formerly numbered Chicana and Chicano Studies 160.) Lecture, three hours. Survey of course premises of Chicano language use, including history of Chicano languages, types and social functions of Chicano speech (pachuco, caló, Spanglish), sexist language, and multi-lingualism and monolingualism and (2) major social issues associated with language use by Chicanos and other urban ethnic populations. Letter grading.


164XP. Oral History: Latino New Immigrant Youth. (4) (Formerly numbered 164SL.) Seminar, three hours; tutorial three hours. Theory, methodology, and practice of oral history, together with background information on Mexican, Central American, and Latin immigrant. Emphasis on oral history and testimonio methods. P/NP or letter grading.

165. Latinas and Latinos in Public Education. (4) (Formerly numbered Chicana and Chicano Studies 165.) Lecture, four hours. Examination of language issues pertinent to educational systems, including language inequity, literacy, socialization, as well as institutional ideologies. Letter grading.

166. Paulo Freire for Chicana/Chicana Classroom. (4) (Formerly numbered Chicana and Chicano Studies 166.) Seminar, four hours. Introduction to pedagogy of Paulo Freire and his historical and contemporary problems concerning Chicana/Chicana education. Central focus to offer Freirean alternative to answer theoretical, methodological, practical, and policy questions about schooling of Chicanas/Chicanos in U.S. P/NP or letter grading.

167XP. Taking It to Street: Spanish in Community. (4) (Formerly numbered Chicana and Chicano Studies 167SL.) (Same as Spanish M165XP.) Seminar, three hours; fieldwork, 10 hours. Enforced requisite: Spanish 25 or 27. Service learning course to give students opportunity to use cultural and linguistic knowledge acquired in Spanish classes in real-world settings. Examination of methods of community involvement and change making processes within variety of professional contexts in community. Students gain experiential and/or learning to broaden their understanding of Spanish-speaking and Latinx communities. Students have opportunity to use cultural and linguistic knowledge acquired in Spanish classes in real-world settings. Topics may include oral tradition, immigrant narratives, visual culture and community, language and identity in community, urban spaces, etc. May be repeated for credit with topic change. P/NP or letter grading.

171. Humor as Social Control. (4) (Formerly numbered Chicana and Chicano Studies 171.) Lecture, four hours. Hegemonic humor directs laughter of more fortunate people against those who fall short. In this sense laughter becomes weapon used against Latinos and immigrants. With rise of Latinos in last decade, there has been increase of various guises of anti-Latino and anti-Chicano humor in commercial mass-mediated popular culture. Exploration of theorizing, as well as today’s myriad examples, of such humor to develop critical literacy of social work it accomplishes. Letter grading.

172. Chicana and Chicano Ethnography. (4) (Formerly numbered Chicana and Chicano Studies 172.) Lecture, four hours. Culture change theory encompasses such issues as innovation, syncretism, coloquialism, urbanism, assimilation, and acculturation. Examination of methods anthropologists/ethnographers use in studying and analyzing culture change within ethnohistorical background of Chicana and Chicanos. Students will identify socio-cultural and social origins of modern habits and customs and, more importantly, unravel various culture change threads of that experience. Topics include technology evolution, Indian culture revitalization, peasantries, expansionism, industrialization, immigration, ethnicity, and adaptation. Field project on some aspect of culture change required. P/NP or letter grading.

M170XP. Topics in Community Engagement. (5) (Formerly numbered Chicana and Chicano Studies M170SL.) (Same as Spanish M172XP.) Seminar, four hours; fieldwork; four to six hours. Required. Enforced requisite: course M160. Service learning course to give students opportunity to use cultural and linguistic knowledge acquired in Spanish classes in real-world settings. Examination of methods of community involvement and change making processes within variety of professional contexts in community. Students gain experiential and/or learning to broaden their understanding of Spanish-speaking and Latinx communities. Students have opportunity to use cultural and linguistic knowledge acquired in Spanish classes in real-world settings. Topics may include oral tradition, immigrant narratives, visual culture and community, language and identity in community, urban spaces, etc. May be repeated for credit with topic change. P/NP or letter grading.

169. Xican@ Indigeneity. (4) (Formerly numbered Chicana and Chicano Studies 169B.) Seminar, four hours. Limited to seniors/juniors. Research seminar organized around readings and engaged discussion of critical topic of interest in field. Exploration of its theoretical implication for field, and practical implications for communities. Addresses Xican@ indigeneity. Exploration of historical and contemporary social, political, and cultural characteristics of Xican@ peoples; what it means to be indigeneous, Indian mestiza/o; relationship to and between cultural and linguistics memories, continuities, discontinuities, language change; and indigenous epistemologies, decolonization, and the perspective Xican@. Final research project required. P/NP or letter grading.
movements both historically and in its present context in contemporary society, featuring lectures, conversations, films, readings, and guest speakers. Exploration of some of the critical issues of Chicano/a history and the role of nonviolent action throughout recent U.S. history. Examination of particular lessons of nonviolent movements as they impact social change organizing in Los Angeles. P/NP or letter grading.

174AX. Civil Rights: Understanding, Using, and Resolving Conflict. (5-5 Formerly numbered Chicana and Chicano Studies 174AX-174BX.) Lecture, four hours; discussion, three hours. Course 174AX is required, prerequisite to 174BX. Designed for students who want to learn principles of dialogue and mediation, as alternatives to violence, and practice how to apply them in educational settings. In Progress grading. Corequisites: courses 174BXA, M175AL, M175BL, M175CL. Enforced corequisite: course M175C. Letter grading.


M183. History of Los Angeles. (4) Formerly numbered Chicana and Chicano Studies M183.) (Same as History M155.) Lecture; three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Societal, economic, political, and cultural development of Los Angeles and its environs from time of its founding to present. Emphasis on diverse peoples of area, with various interpretative points of view, especially Latino/Latina. P/NP or letter grading.

184. History of U.S./Mexican Borderlands. (4) (Formerly numbered Chicana/o Studies 184.) Lecture, four hours. Survey of geographic and historical diversity of Chicana/Chicano identity and culture, with emphasis on regional communities of California, New Mexico, and Texas. Social and economic conditions of borderlands as situated within U.S. national context. Letter grading.

M185. Whose Monument Where: Course on Public Art. (4) (Formerly numbered Chicana and Chicano Studies M185.) (Same as Art M185 and World Arts and Cultures M126.) Lecture, four hours. Recommended corequisite: course M186A, M186B, or M186C. Examination of public monuments in U.S. as basis for cultural insight and critique of American values from perspective of Chicana/o artists. Use of text book in urban space issues such as who is public, what is public space at end of 20th century, what defines neighborhoods, and do different ethnic populations use public space differently. P/NP or letter grading.

M196A. Beyond Mexican Mural: Beginning Muralism and Community Development. (4) (Formerly numbered Chicana and Chicano Studies M196A.) (Same as Art M196A and World Arts and Cultures M125A.) Studio/lecture, four hours. Corequisite: course M186AL. Investigation of muralism as method of community education, development, and empowerment. Exploration of issues through development of large-scale collaborative digitally created image and/or painting for placement in community. Emphasis on role of critical thinking, public policy, and production of new social identities rooted in historical experiences of conquest, immigration, mobilization, and revolution. P/NP or letter grading.

M187. Latino Metropolis: Architecture and Urbanism in the Americas. (4) (Formerly numbered Chicana and Chicano Studies M187.) (Same as History M151E and Urban Planning M187.) Lecture, four hours. Introduction to history of architecture and urbanism in Americas from fabian to present, especially to barrios of 21st-century Los Angeles and Miami. Emphasis on role of cities in Latino/Latina experience and use of architecture and city planning to forge new social identities rooted in historical experiences of conquest, immigration, mobilization, and revolution. P/NP or letter grading.

M187B. Colonial Latin American Art. (4) (Formerly numbered Chicana and Chicano Studies M187B.) (Same as Art History M175B.) Lecture, four hours. Course includes historical overview of selected Latin American countries and their art, their civilization, and major topics discussed in existing, scholarship, including calendar, foundational and creation myths, stories of migration, human sacrifice, rulership, warfare, gender, religion, philosophy, and art and architecture. Assessment of validity of scholarly assumptions about artistic production. Art and society in light of available sources. P/NP or letter grading.

187C. Aztec Art. (4) (Formerly numbered Chicana and Chicano Studies 187C.) Lecture, four hours. Course includes historical overview of selected Latin American countries and their art, their civilization, and major topics discussed in existing, scholarship, including calendar, foundational and creation myths, stories of migration, human sacrifice, rulership, warfare, gender, religion, philosophy, and art and architecture. Assessment of validity of scholarly assumptions about artistic production. Art and society in light of available sources. P/NP or letter grading.

188. Special Courses in Chicana/o and Central American Studies. (4-4-4) (Formerly numbered Chicana and Chicano Studies 188.) Seminar, three hours. Some sections may require prior coursework. Departmentally sponsored experimental or temporary courses, those taught by visiting faculty members. May be repeated for credit. P/NP or letter grading.

Letter grading.

With faculty mentor required. May not be repeated. Letter grading.

188SA. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to develop course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced requisite: course 188SA. Limited to USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE 88S course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

190. Research Colloquia in Chicana/o and Central American Studies. (2) (Formerly numbered Chicana and Chicano Studies 190.) Seminar, two hours. Designed to bring together students undertaking supervised tutorial or research projects in Chicana and Chicano studies, and departments of sociology, anthropology, economics, political science, and folklore. May be repeated for credit. P/NP grading.

191. Vital Topics Research Seminars: Chicana/o and Central American Studies. (4) (Formerly numbered Chicana and Chicano Studies 191.) Seminar, four hours. Limited to juniors/seniors. Research seminar in an area with emphasis on critical topics of interest in field. Exploration of issues, theoretical implications for field, and practical implications for communities. Final research project required. May be repeated for credit. P/NP or letter grading.

192A. Undergraduate Practicum in Chicana/o and Central American Studies. (4) (Formerly numbered Chicana and Chicano Studies 192A.) Seminar, four hours. Limited to juniors/seniors. Training and supervised practicum for advanced undergraduate students who assist in preparation of materials and/or development of innovative programs or courses of study under guidance of faculty members in small group settings or one-on-one setting. May not be applied toward departmental major or minor elective requirements. May be repeated for credit. P/NP or letter grading.

192C. Individual Capstone Studies. (2) (Formerly numbered Chicana and Chicano Studies 192C.) Seminar, one hour. Limited to departmental junior/senior majors. Guided study led by faculty supervisor. Instructor meets with student to help design culminating capstone project so it conforms to departmental capstone project guidelines. Must be taken in conjunction with one upper-division departmental course. May not be repeated for credit. Individual contract required. Letter grading.


199. Directed Research or Senior Project in Chicana/o and Central American Studies. (2 to 4) (Formerly numbered Chicana and Chicano Studies 199.) Tutorial, two hours. Limited to juniors/seniors. Supervision of individual research or investigation under guidance of faculty mentor. Culuminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

200. Theoretical Paradigms in Chicana/o and Central American Studies. (4) (Formerly numbered Chicana and Chicano Studies 200.) Seminar, three hours. Limited to graduate students. Examination of several approaches and important theoretical frameworks in field of Chicana and Chicano studies. Exploration of changes that have taken place around four major theoretical areas—coloniality, nationhood, inequality studies, and genders and sexualities. S/U or letter grading.

202. Activist Scholarship and Intersectional Methodologies Seminar. (4) (Formerly numbered Chicana and Chicano Studies 202.) Seminar, three hours. Limited to graduate students. Exploration of critical methodological and epistemological intersections of Chicana/o studies as basis for social action research—Chicana/Cheano cultural studies, Chicana feminism, queer studies, and critical legal studies. S/U or letter grading.

203. Qualitative Methods in Study of Chicanas/Chicanos and Latinas/Latinos. (4) (Formerly numbered Chicana and Chicano Studies 203.) Seminar, three hours. Limited to graduate students. Methods course that takes students through entire empirical research cycle. Students required to collectively develop interseting research questions, conduct qualitative research, analyze original data, and write final papers that contextualize findings within specific theoretical literatures. To answer research questions, students select from theoretical frameworks discussed in readings. S/U or letter grading.

M206. Politics of Hood. (4) (Formerly numbered Chicana and Chicano Studies M206.) (Same as Public Policy M231.) Seminar, three hours. Limited to graduate students. Investigation of root causes and consequences of critical problems impacting people who live in low-income, racialized, gentrified, welfare, public education, health disparities, and segregation, among other political issues. S/U or letter grading.

207. Racial Geographies. (4) (Formerly numbered Chicana and Chicano Studies 207.) Seminar, three hours. Interdisciplinary examination of spatial turn in social sciences and humanities. Drawing upon readings from geography, history, ethnic, and American studies, use of analytic of space to investigate questions of race in U.S. Focus on production of space, geographic approaches to racial formation, and anti-racist, place-based struggles. Study foregrounds intersections of Chicana and Chicano studies and models of relational racialization. S/U or letter grading.

208. Research Design and Methods in Chicana/Chicano Studies. (4) (Formerly numbered Chicana and Chicano Studies 208.) Seminar, three hours. Research design and methodologies in Xicana studies grounded in perspectiva Chicana/Chicana perspex. Study of knowledge production and scholarship in Chicana studies, how it can be done, and how it can be evaluated. Includes critical comparison with Chicanoity and identity studies, and associated biases, flaws, and fatal flaws. S/U or letter grading.

209. Service Learning: Theory and Practice. (4) (Formerly numbered Chicana and Chicano Studies 209.) Seminar, three hours. Limited to graduate students. Examination of approaches and theories that underpin service learning and exploration of ways in which service learning can be utilized in academic disciplines (second and foreign language instruction, education, ethnic studies, labor studies, women’s studies, public health, literature, public art, political
210. Queer of Color Genealogies. (4) (Formerly numbered Chicana and Chicano Studies 210.) Seminar, three hours. Art of community-making by those multiplely marginalized by categories of race, gender, class, citizenship, and nation. Focus on women, people, and groups of normative forms of belonging. Tracking of genealogies of queer of color communities through alternative archives of desire, love, affect, memory, performance, and politics. Reading about queer of color theories and practices, with special focus on oral history, digital storytelling, and forms of social documentation methodologies. S/U or letter grading.

211. Immobilizing Immigrants: Detention and Deportation. (4) (Formerly numbered Chicana and Chicano Studies 211.) Seminar, three hours. History of detention and deportation policy in U.S. as it affects Mexicans and other Latinas/Latinos. Consolidation of this legal authority and its deployment across 20th century. S/U or letter grading.

C212. Latina/Latino Families in U.S. (4) (Formerly numbered Chicana and Chicano Studies 212.) Lecture, four hours; discussion, one hour (when sched.); term papers. Investigations of race, class, and gender help shape experiences of Latina/Latino families in U.S. and society. See also current discussions in this area with emphasis on immigration and the role of Latina/o communities within the context of the global economy. S/U or letter grading.


CM214. Chicana Feminism. (4) (Formerly numbered Chicana and Chicano Studies CM214.) (Same as Gender Studies CM232A.) Lecture, four hours. Enforced requisite: course 10A or Gender Studies 10. Examinations of theories and practices of women who identify as Chicana feminist. Analysis of writings of Chicana writers who do not identify as feminist but whose practices attend to gender inequities faced by Chicanas both within Chicana/Chicana community and dominant society. Attention to Anglo-European and Third World women. Concurrently scheduled with course CM110. S/U or letter grading.

C215. Transnational Women’s Organizing in America. (4) (Formerly numbered Chicana and Chicano Studies C215.) Lecture, four hours. Feminist theories of transnational organizing. Examination of gender and race as central to processes of globalization and essential to economic and political struggles encompassed in transnational power relations. Exploration of how questions of race and gender influence global economic and political processes in Latin America and its diasporas. In time when people, capital, cultures, and technologies cross national borders with growing frequency, discussion of process of accelerated globalization has been linked to feminization of labor and migration, environmental degradation, questions of diaspora, sexuality, and cultural displacement, as well as growing global militarization. Problems and issues created by global cultural, social, and political responses envisioned by transnational organizing. Concurrently scheduled with course CM147. Letter grading.

216. Product of Immigrant Illegality. (4) (Formerly numbered Chicana and Chicano Studies 216) Seminar, three hours. Limited to graduate students. Based mostly on U.S. academic freedom or immigration studies. Study of history of immigration policies and enforcement practices along with key empirical and theoretical contributions to understand how immigrant illegality is produced. S/U or letter grading.


M218. Latinx Photoethnography. (4) (Same as Anthropology M239R.) Seminar, three hours. Hands-on introduction to using photography as ethnographic field method. Prepares students with review of key and relevant literature from fields of sociocultural anthropology, visual anthropology, and photographic theory. Exploration of technical, ethical, and aesthetic aspects of photography in relation to their relationship to anthropological field methods, participant observation, and issues of representation—especially among Latinx communities. Student-led discussions of assignments and hands-on learning. National and international Latinx photoethnography project focused on Latinx issues in greater Los Angeles. S/U or letter grading.

222. Aesthetics of Place in Chicana/Chicano Expressive Culture. (4) (Formerly numbered Chicana and Chicano Studies 223.) Seminar, three hours. Examination of various place-based aesthetic traditions, including indigenous/indias, Santería, diasporic, and Aztlán aesthetics, in Chicana/Chicano visual art, film, performance, and literature. Special focus on place as site of identity, history/memory, and creative production. S/U or letter grading.

C231. Community Cultural Development in Public Art: From Neighborhood to Global. (4) (Formerly numbered Chicana and Chicano Studies 231.) Seminar, three hours; laboratory, one hour. Designed for graduate students. Explores the relationships between local and global communities through art making as process and as aesthetic experience. Can form arts and urban communities in U.S. and Latin America. S/U or letter grading.

232. New Social Media and Activist Art. (4) (Formerly numbered Chicana and Chicano Studies 232.) Studio, four hours. Limited to graduate students. Hands-on learning and production experience as essential to full understanding of modern media. Promotion of pragmatic style of humanistic and social scientific scholarship that promotes critical and productive debate about the form, content, and context while learning to effectively use social media. S/U or letter grading.

C235. Bilingual Writing Workshop. (4) (Formerly numbered Chicana and Chicano Studies C235.) Seminar, four hours. Limited to graduate students. Writing sample required; access to course web page mandatory. Technical instruction, analysis, theoretical discussion of bilingual creative expression through genre of short fiction. Bilingualism as both politics and aesthetics to be central theme. Discussion and analysis of Chicana/Chicana and Latina/Latina short story collections. Peer critique of writing assignments. Narrative techniques such as characterization, plot, conflict, setting, point of view, and dialogue, and magical realism as prevailing Chicanas/Latinas fiction styles. Students learn to produce draft manuscripts, public reading, and publication. Concurrently scheduled with course CM135. Letter grading.

236. Latinx Noir and City at Night. (4) (Formerly numbered Chicana and Chicano Studies 236) Seminar, three hours. Noir literary and cinematic genre is characterized by gritty realism, social disorder, violence, and nocturnal meanderings in darkest, meanest streets of urban metropolises. Analysis of transnational organizing. Examination of gender and Latin American arts is posited. Focus intersects with other related topics, including art post-1968; comparative indigenousities in Americas; art, globalization, and transnationalism; decolonial turn; transnational feminisms; and New American counter narratives. S/U or letter grading.

238. New Directions in Chicana and Latinx Art. (4) (Formerly numbered Chicana and Chicano Studies 238) Seminar, three hours. Focus on current state and future of research, teaching, and museum practice in contemporary Art of Americas, with focus on Chicana and Chicano/Latina/Latino art. Study of influential theoretical texts from literary studies and critical examination of recent publications in arts, including museum exhibition catalog, as hemispheric and transnational organizing. Latinx and Latin American arts is posited. Focus intersects with other related topics, including art post-1968; comparative indigenousities in Americas; art, globalization, and transnationalism; decolonial turn; transnational feminisms; and New American counter narratives. S/U or letter grading.

239. Digital Methods for Research and Presentations. (4) (Formerly numbered Chicana and Chicano Studies 239). Laboratory, four hours. Students learn how to think about one’s own research in visual way, and how to develop digital skills to produce images and videos for more professional and compelling research presentations and job talks that do not infringe upon copyrighted materials. Students learn how to locate high-resolution images, and how to use Photoshop to manipulate, edit, color balance, and output the final image. Students learn how to use Prezi or oral presentation software and archiving method for gathering and organizing visual materials on their research. Each student receives personalized feedback on the presentation style based on the ability of their research, for example, mapping software, or video editing for oral history projects, or subtracting/translating for digital video projects. Students learn how to use Sublime Text or iMovie or QuickTime to produce short videos that can be incorporated into their presentations. For their final project, students are required to present mock conference paper, teaching portfolio, comprehensive historiographic review, or creative project. S/U or letter grading.

240. U.S. Central Americans Making Art and Memo- ries. (4) (Formerly numbered Chicana and Chicano Studies 240.) Seminar, three hours. Limited to graduate students. Memory is trope through which U.S. Central American writers, performance, visual, media,
and public artists and activists communicate across social, national, and phenomenological borders. Through contemporary theories on memory and narrativity, Chicana/o and Central American artists and activists communicate across this expansive field and design of complex research problems. S/U or letter grading.

C256. Understanding Whiteness in American History and Culture. (4) (Formerly numbered Chicana and Chicano Studies C256.) Lecture. Four hours; discussion one hour (scheduled). Designed for graduate students. History, construction, and representation of whiteness in American society. Readings and discussions trace evolution of white identity and explore its significance to historical construction of race class and gender. Current research is currently scheduled with course CM182. Letter grading.

M257. Chicana/o and Intersectional Marxisms. (4) (Formerly numbered Chicana and Chicano Studies M257.) Seminar, Three hours. Examination of whiteness in American society. Readings and discussions trace evolution of white identity and explore its significance to historical construction of race class and gender. Current research is currently scheduled with course CM182. Letter grading.

258. Laughter, Political Humor, and Social Control. (4) (Formerly numbered Chicana and Chicano Studies 258.) Seminar, Three hours. Limited to graduate students. Investigation of power of political humor, one social practice theorized as an alternative hierarchy of power, development of classification of types and settings of political humor, and critical evaluation of recent social scientific models of its nature. S/U or letter grading.

259. Critical Discourse Analytic Methods. (4) (Formerly numbered Chicana and Chicano Studies 259.) Seminar, Three hours. Limited to departmental graduate students. Two critical discourse analytic (CDA) methods taught to document language of public figures. Students team employ one method (conceptual metaphor CDA or discourse historical approach) to analyze political or public discourse surrounding one controversial issue. Empirical study of discourses that are based on independently developed research enterprises can be valuable tool for variety of graduate student research. S/U or letter grading.

274. Language Politics and Policies in U.S.: Comparative History. (4) (Formerly numbered Chicana and Chicano Studies C274.) Lecture, Four hours. Historical overview of national language policies, especially school language policy, in U.S. as context to understanding social, legal, and political constraints on bilingualism. Definitions and development of language policy across historical and educational language policies in U.S., demographic profile of language diversity, and current language and educational policy issues in U.S. Comparisons with selected international cases. Concurrently scheduled with course C179. S/U or letter grading.

276. Health in Chicano/Latino Population. (4) (Formerly numbered Chicana and Chicano Studies C276.) Lecture, Four hours; discussion, one hour. Designed for graduate students. Examination of Chicana/Latino health status through life expectancy, causes of death, reportable diseases, services utilization, provider supply, and risk behaviors within demographic/immigrant impact on Chicana/os. Concurrently scheduled with course CM106. Letter grading.

277. Latino Social Policy. (4) (Formerly numbered Chicana and Chicano Studies C277.) Lecture, Three hours; discussion, one hour (when scheduled). Examination of social welfare of Latinos (Chicanos, Puerto Ricans, and Cubans) in U.S. through assessment and critical analysis of social policy issues affecting them. Survey of social, economic, cultural, and political circumstances affecting ability of Latinos to access public benefits and human services. Concurrently scheduled with course CM106. Letter grading.

278. Immigration Policy and Activism. (4) (Same as Public Policy M230.) Seminar, Three hours. High-lighting roles of race, gender, sexuality, and citizenship status, exploration of how immigrant rights activists organize for legalization and against detention, deporta-tion, and border militarization. Letter grading.

279. Globalization and Transnationalism. (4) (Formerly numbered Chicana and Chicano Studies 279.) Seminar, Three hours. Interdisciplinary seminar that integrates political-economic, historical-sociological, and anthropological-cultural perspectives to help students distinguish the analysis of interactions of globalization of flows of people, material goods, information, and political-cultural in-fluences and localized transnational dynamics that together are giving meaning and constructing new social identities and strategies for struggle throughout world. S/U or letter grading.

280. Urban Social Inequality. (4) (Formerly numbered Chicana and Chicano Studies 280.) Seminar, Three hours. Through wide range of methods, approaches, and theoretical frameworks examined, exposure to key research on inequality. S/U or letter grading.

281. Central American Migration and Integration. (4) (Formerly numbered Chicana and Chicano Studies 281.) Seminar, Three hours. Through empirical research and informed by relevant theoretical frameworks, students develop different perspectives based on migration and integration experiences of Central American immigrants in greater Los Angeles area. Students conduct qualitative research, analyze data, and write final papers that contextualize findings within existing social scientific literature. S/U or letter grading.

282. Chicana/Chicano Legal History. (4) (Formerly numbered Chicana and Chicano Studies 282.) Seminar, Three hours. History of legal history of Chicanos/Chicanas in U.S. from 19th-20th century to present, with emphasis on critical race theory. Examination of landmark legislation and key appellate cases that have impacted Chicano/Latino community. Topics include critical race theory, Treaty of Guadalupe-Hidalgo, legal construction of Mexican American racial identity, historic educational segregation, contemporary educa-tional issues, jury rights, Chicano movement, and undocumented immigration. S/U or letter grading.

M289. Studies in Chicana/Chicano Literature. (4) (Formerly numbered Chicana and Chicano Studies M289.) Same as English M289. Three hours; discussion, one hour (when scheduled). Intensive research and study of major themes, authors, and issues in Chicana/Chicano literature and culture. Examination of political, aesthetic, economic, and cultural context that each Chicana/o discourse; limits of investigation set by individual instructor. May be repeated for credit. S/U or letter grading.

291. Variable Topics Research Seminars: Chicana/o and Central American Studies. (4) (Formerly numbered Chicana and Chicano Studies 291.) Seminar, Three hours. Limited to graduate students. Research seminar organized around readings and engaged discussion of a critical topic of interest in field. Exploration of issue, its theoretical implication for field, and practical implications for communities. Topics vary according to interests of seminar. May be repeated for credit with consent of director of graduate studies. S/U or letter grading.

375. Teaching Apprentice Practicum. (1 to 4) (For- merly numbered Chicana and Chicano Studies 375.) Seminar, To be arranged. Preparation: apprenticeship per-sonnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guid-ance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U or letter grading.

495. Learner-Centered Teaching in Chicana/o and Central American Studies. (4) (Formerly numbered Chicana and Chicano Studies 495.) Seminar, Four hours. Designed for graduate students and required of all new department teaching apprentices. Interactive forum for discussing learner-centered teaching in Chi-
CIVIL AND ENVIRONMENTAL ENGINEERING

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Civil and Environmental Engineering
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Department e-mail
Ertugrul Taciroglu, PhD, Chair
Jennifer A. Jay, PhD, Vice Chair
Jian Zhang, PhD, Vice Chair

Faculty Roster

Professors
Yousef Bozorgnia, PhD, PE
Scott J. Brandenberg, PhD, PE
Mekonnen Gebremichael, PhD
Eric M.V. Hoek, PhD
Jennifer A. Jay, PhD
Jiann-Wen Woody Ju, PhD, PE
Dennis P. Lettenmaier, PhD, NAE
Enrique A. López-Droguett, PhD
Shaili Mahendra, PhD
Steven A. Margulis, PhD
Ali Mosleh, PhD, NAE (Evalyn Knight Professor of Engineering)
Sriram Narasimhan, PhD
Gaurav N. Sant, PhD (Pritzker Professor of Sustainability)
Michael K. Stenstrom, PhD, PE
Jonathan P. Stewart, PhD, PE
Ertugrul Taciroglu, PhD
John W. Wallace, PhD
Jian Zhang, PhD

Professors Emeriti
Stanley B. Dong, PhD, PE
Lewis F. Felton, PhD
Michael E. Fourny, PhD, PE
Richard L. Perrine, PhD
Moshe F. Rubinstein, PhD
Keith D. Stolzenbach, PhD, PE
Mladen Vucetic, PhD
William W-G. Yeh, PhD, NAE (Richard G. Newman AECOM Endowed Professor Emeritus of Civil Engineering)

Associate Professors
Mathieu Bauchy, PhD
Henry V. Burton, PhD, SE (Presidential Endowed Professor of Structural Engineering)
Timu W. Gallien, PhD
David Jassby, PhD
Jiaqi Ma, PhD

Assistant Professors
Tierra S. Bills, PhD
Alvar Escriva-Bou, PhD
Sanjay K. Mohanty, PhD
Regan F. Patterson, PhD

Adjunct Professor
Thomas A. Sabol, PhD, SE

Adjunct Associate Professors
Donald R. Kendall, PhD, PE
Issam Najm, PhD, PE

Overview

The Department of Civil and Environmental Engineering programs at UCLA include civil engineering materials, earthquake engineering, environmental engineering, geotechnical engineering, hydrology and water resources engineering, structural engineering, and structural mechanics.

Undergraduate Study

The undergraduate curriculum leads to a BS in Civil Engineering, a broad-based education in environmental engineering, geotechnical engineering, hydrology and water resources engineering, and structural engineering and mechanics. This program is an excellent foundation for entry into professional practice in civil engineering or for more advanced study. The department also offers the undergraduate Environmental Engineering minor.

Graduate Study

At the graduate level, MS and PhD degree programs are offered in the areas of civil engineering materials, environmental engineering, geo-
Civil and Environmental Engineering 91 (or Mechanical and Aerospace Engineering 101), 102, 103, C104 (or Materials Science and Engineering 104), 108, 110 (or C111), 120, 135A, 150, 153, 190, Mechanical and Aerospace Engineering 103; three technical breadth courses (12 units) selected from an approved list available in the Office of Academic and Student Affairs; and at least eight major field elective courses (32 units) from the lists below with at least two design courses, one of which must be a capstone design course and two of which must be laboratory courses. The laboratory courses must be taken from two distinct areas (both 120L and 129L may be taken to satisfy the two-laboratory requirement). Courses applied toward the required course requirement may not also be applied toward the major field elective requirement.

Civil Engineering Materials: Civil and Environmental Engineering C104, C105, C106, C111, C182; laboratory course: 108L.

Environmental Engineering: Civil and Environmental Engineering 154, 155, C159, C164, M165, M166; laboratory courses: 156A, 156B; capstone design courses: 157B, 157C.

Geotechnical Engineering: Civil and Environmental Engineering 125; laboratory courses: 120L, 129L; design courses: 121, 123 (capstone).


Structural Engineering and Mechanics: Civil and Environmental Engineering 125, 130, 135B, M135C, C137, 142; laboratory courses: 108L, 135L, 140L; design courses: 141, 143, 144 (capstone), 147 (capstone), 148.

Transportation Engineering: Civil and Environmental Engineering 180, C181, C182, C185, C186.

Additional Elective Options: Courses selected from an approved list available in the Office of Academic and Student Affairs. For information on UC, school, and general education requirements, see the Samuel school section in College and Schools.

**Undergraduate Minor**

**Environmental Engineering Minor**
The Environmental Engineering minor is designed for students who wish to augment their major program of study with an exposure to engineering methods applied to key environmental problems facing modern society in developed and developing countries. The minor also offers students a brief experience and understanding of the roles that environmental engineering methods play in solving environmental problems.

**Admission**
To enter the minor, students must be in good academic standing (2.0 grade-point average or better) and file a petition in the Office of Academic and Student Affairs, 6426 Boelter Hall.

**The Minor**
Required Lower-Division Course (4 units): Mathematics 3C or 32A.

Required Upper-Division Courses (24 units minimum):

**Policies**
Credit for Chemical Engineering 102A and Mechanical and Aerospace Engineering 105A is not allowed.
A minimum of 20 upper-division units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor, and at least 16 units toward the minor must be taken in residence at UCLA. Transfer credit for any of the above is subject to departmental approval; consult with the undergraduate counselors before enrolling in any courses for the minor.

Each minor course must be taken for a letter grade, and students must have a minimum grade of C (2.0) in each and an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

**Graduate Major**

Civil Engineering MS, PhD
The Master of Science degree has the following areas of study: civil engineering materials, environmental engineering, geotechnical engineering, geophysics, geology, geomatics, hydrology, and water resources engineering.

The Doctor of Philosophy degree has the following major fields or subdisciplines: civil engineering materials, environmental engineering, geotechnical engineering, geophysics, hydrology, and water resources engineering, structural/earthquake engineering, structural mechanics, and transportation engineering.

**Requirements**
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

**Civil and Environmental Engineering**

**Lower-Division Courses**
1. Civil Engineering and Infrastructure. (2) Lecture, two hours; outside study, four hours. Examples of infrastructure, its importance, and manner by which it is designed and constructed. Role of civil engineers in infrastructure development and preservation. P/NP grading.

2. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.


**58XP. Climate Change, Water Quality, and Ecosystem Functioning. (5) (Formerly numbered S24A.) Lecture, four hours; service learning, two hours; outside study, nine hours. Science related to climate change, water quality, and ecosystem health. Topics include nutrient cycling, hydrologic cycle, ecosystem structure and services, biodiversity, basic aquatic chemistry, and impacts of climate change on ecosystem functioning and water quality. Participation in series of science education projects to elementary or middle school audience. Letter grading.

**91. Statics. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: Mathematics 31A, 31B, Physics 1A. Newtonian mechanics, vector representation, and resultant forces and moments. Free-body diagrams and equilibrium, internal loads and equilibrium in trusses, frames, and beams. Planar and nonplanar systems, distributed forces, determinant and indeterminate force systems, shear and moment diagrams, and axial force diagrams. Letter grading.

**97. Variable Topics in Civil and Environmental Engineering. (2 to 4) Seminar, two hours. Current topics and research methods in civil and environmental engineering. May be repeated for credit. Letter grading.

**99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

**Upper-Division Courses**
102. Dynamics of Particles and Bodies. (2) Lecture, two hours; discussion, two hours; outside study, two hours. Requisites: course 91 or Mechanical and Aerospace Engineering 101, Physics 1B. Introduction to fundamentals of dynamics of single particles, system of particles, and rigid bodies. Topics include kinematics and kinetics of particles, work and energy, impulse and momentum, multiparticle systems, kinematics and kinetics of motion in two- and three-dimensional motions. Letter grading.

103. Applied Numerical Computing and Modeling in Civil and Environmental Engineering. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: course M20 (or Computer Science 31), Mathematics 33B or Mechanical and Aerospace Engineering 82 (either may be taken concurrently). Introduction to numerical computing with specific applications in civil and environmental engineering. Topics
include error and computer arithmetic, root finding, curve fitting, numerical integration and differentiation, solution of systems of linear and nonlinear equations, numerical solution of ordinary and partial differential equations. Letter grading.


C106. Modeling and Simulation of Civil Engineering Materials. (4) Lecture, four hours; outside study, eight hours. Requisites: Chemistry and Biochemistry 20A, 20B, Mathematics 31A, 31B, 32B, Physics 1A, 1B, 1C. Provides understanding of modeling and computer simulation for civil engineering materials. Albums specifically on practical examples and applications. By course end, students are expected to be able to independently run simulations at scale relevant to targeted problems. Concurrently scheduled with course C206. Letter grading.

108. Introduction to Mechanics of Deformable Solids. (4) Lecture, four hours; discussion; two hours; outside study, six hours. Requisites: course 91 or Mechanical and Aerospace Engineering 101, Mathematics 32B, Physics 1A. Review of equilibrium principles; forces and moments transmitted by slender members or beams. Stress-strain relations with focus on linear elasticity. Transformation of stress and strain. Deformations and stresses caused by tension, compression, bending, shear, and torsion. Mechanical behavior of structural applications to trusses, beams, shafts, and columns. Introduction to virtual work principle. Letter grading.


110. Introduction to Probability and Statistics for Engineers. (4) Lecture, four hours; discussion; two hours; outside study, six hours; hour (when scheduled); outside study, seven hours. Requisites: Mathematics 32A, 33A. Recommended: course M20. Introduction to fundamental concepts and applications of probability and statistics in civil engineering, with focus on how these concepts are used in experimental design and sampling, data analysis, risk and reliability analysis, and project design under uncertainty. Topics include basic probability concepts, random variables and analytical probability distributions, functions of random variables, estimating parameters from observational data, regression, hypothesis testing, and Bayesian concepts. Letter grading.

C111. Machine Learning and Artificial Intelligence for Civil Engineering. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: course M20, Chemistry 20A, 20B, Mathematics 31A, 31B, 32B, Physics 1A, 1B, 1C. Corequisite: course 108. Practical introduction to artificial intelligence and machine learning for civil engineering problems. Focus on practice and problem-solving skills. By course end, student is expected to be able to independently run machine learning analysis. Concurrently scheduled with course C211. Letter grading.

120. Principles of Soil Mechanics. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 108. Soil as foundation for structures and as material of construction. Soil classification, physical and mechanical properties, soil compaction, earth pressures, consolidation, and shear strength. Letter grading.

120L. Soil Mechanics Laboratory. (Formerly numbered 128L) Lecture, one hour; laboratory, six hours; outside study, five hours. Requisite or corequisite: course 120. Laboratory experiments to be performed by student to provide experience for design and analysis of soil for design of earthworks. Soil classification, grain size distribution, Atterberg limits, specific gravity, compaction, expansion index, consolidation, shear strength determination, and other problems. Laboratory report writing. Letter grading.

121. Design of Foundations and Earth Structures. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite or corequisite: Design of Foundations and Earth Methods for foundations and earth structures. Site investigation, including evaluation of soil properties for design. Design of footings and piles, including stability and settlement considerations. Design of slopes and earth retaining structures. Letter grading.

123. Advanced Geotechnical Design. (4) (Formerly numbered 123L) Lecture, two hours; discussion, two hours; active learning, two hours; outside study, six hours. Requisite or corequisite: Design of Foundations and Earth Methods for foundations and earth structures. Site investigation, including limit equilibrium procedures, finite element method, seepage analysis, and advanced topics such as rapid drawdown, construction of embankments on soft soil, and seismic slope stability. Lateral earth retention systems including gravity walls and excavation support systems. Capstone design project involving appropriate engineering standards and realistic constraints. Letter grading.


C128. Geohazards and Infrastructure Resilience. (4) Lecture, four hours; outside study, eight hours. Requirer: course 121. Soil and rock units. Relationships developed between landforms, active, past, and ancient geologic processes, ground and surface water, and properties of soil and rock. Geohazard assessment and climate change, wildfires, landslides, volcanism, and earthquakes. Effects of geologic processes on civil infrastructure and risk assessment procedures to promote resilience. Concurrently scheduled with course C228. Letter grading.


130. Elementary Structural Mechanics. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 108. Analysis of stress and strain, phenomenological material behavior, extension, bending, and shear. Laminated composite beams with general cross-sections, shear center, deflection of beams, torsion of beams, warping, column instability and failure. Letter grading.

135A. Elementary Structural Analysis. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course M20 (or Computer Science 31), 108. Introduction to structural analysis; classification of structural elements; analysis of statically determinate trusses, beams, and frames; deflections in elementary structures; virtual work; analysis of indeterminate structures using force method; introduction to displacement method and energy concepts. Letter grading.

135B. Intermediate Structural Analysis. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 135A. Analysis of truss and frame structures using matrix methods; matrix force method; computer-aided method; analysis of concepts based on theorem of virtual work; moment distribution. Letter grading.

M135C. Introduction to Finite Element Methods. (4) (Soil and Materials Engineering 137C) Lecture, four hours; outside study, eight hours. Requisite: course 120. Geologic characterization of soil and rock. Earth retaining structures. Letter grading.


135L. Structural Design and Testing Laboratory. (4) Lecture, two hours; laboratory; five hours; outside study, five hours. Requisites: courses M20, 125A. Limited enrollment. Testing of models for comparison of experimental and theoretically predicted behavior. Letter grading.


140L. Structural Components and Systems Testing Laboratory. (4) Lecture, two hours; laboratory, six hours; outside study, four hours. Requisite or corequisite: course 142. Determination of practical test results with a wide range of measurements. Evaluation of test results and limitations of calculation procedures used in structural design. Tests include quasi-static tests of structural elements (beams, columns) and frames (slab-column, beam-column) and dynamic tests of simple dynamic structures. Emphasis is placed on assessment of element or subsystem stiffness, strength, and deformation capacity, whereas dynamic tests focus on assessment of periods, mode
shapes, and damping. Development of communication skills through preparation of laboratory reports and oral presentations. Letter grading.

141. Steel Structures. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 135A. Introduction to building codes. Fundamentals of load and resistance factor design of steel elements. Design of tension and compression members. Design of beams and columns. Stress concentration design. Introduction to computer modeling methods and design process. Letter grading.


143. Design of Prestressed Concrete Structures. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 135A, 142. Equivalent: MechEngr 143. Design of prestressed concrete structures that determine and indeterminate systems. Flexural and shear strength design, including secondary effects in indeterminate systems. Design of indeterminate post-tensioned beam using both hand calculations and commercially available computer program. Discussion of external post-tensioning, one- and two-way slab systems. Letter grading.

144. Structural Systems Design. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 141 or 142, and 190. Design course for civil engineering students, with focus on design and performance of complete building structural systems. Introduction to structural, architectural, and mechanical disciplines and professionals in design process. Development of architectural design of tall buildings. Influence of building code, zoning, and finance. Advantages and limitations of different structural systems. Development of structural system design and computer model for architectural design. Letter grading.

148. Wood and Timber Design. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 135B, 141, 190. Role of structural, architectural, and mechanical disciplines and professionals in design process. Development of architectural design of wood and solid wood products, analysis and design of wood and timber structural members subjected to flexural, shear, and axial stresses; connections, bending, shear, and fire-rated wood shear walls and diaphragms. Letter grading.


151. Introduction to Water Resources Engineering. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course M20. Mechanical Engineering 103. Recommended: courses 103, 110. Principles of hydraulics, flow of water in open channels and pressure conduits, reservoirs and dams, hydraulic machinery, hydropower, and nuclear power. Introduction to system analysis and design applied to water resources engineering. Letter grading.

152. Hydraulic and Hydrologic Design. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: courses 150, 151, 190. Analysis and design of hydraulic systems. Analysis of open channel, closed conduits, and pressure pipes. Study of water distribution systems, including water supply and demand, water distribution systems, water quality, and water treatment systems. Letter grading.

152L. Hydrologic Analysis. (4) Lecture, four hours; discussion, two hours; laboratory, five hours; outside study, five hours. Requisite: course 150. Collection, compilation, and interpretation of data for quantification of components of hydrologic cycle. Use of hydrologic and water, resource models. Letter grading.


157C. Design of Wastewater Treatment Plants. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 155, 190. Process design of wastewater treatment plants, including primary and secondary treatment, design detailed review of existing plants, pilot plant studies. Letter grading.

157L. Hydrologic Analysis. (4) Lecture, two hours; laboratory, five hours; outside study, five hours. Requisite: course 150. Collection, compilation, and interpretation of data for quantification of components of hydrologic cycle, that would not only mitigate adverse impact of climate change, but also remain resilient under extreme weather conditions expected during climate change. Concurrently scheduled with course C159. Letter grading.

159. Green Infrastructure. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: courses 150, 153. Overview of fundamental science, engineering, and ecological principles to designing green infrastructure for stormwater management. Students design infrastructure based on current practices, perform engineering calculations to calculate its performance, and develop critical thinking skills needed to design innovative or futuristic green infrastructure systems that would not only mitigate adverse impact of climate change, but also remain resilient under extreme weather conditions expected during climate change. Concurrently scheduled with course C159. Letter grading.

164. Sustainable Waste Management. (4) Formerly numbered 164. Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 153. Introduction to environmental engineering. Management of solid wastes, some of which are hazardous, is an integral part of infrastructure development, and it is required to achieve environmental sustainability. Study of all aspects of hazardous and municipal solid waste management technologies. Focus on reuse of some wastes for alternative applications or energy production. Students are expected to integrate economic, environmental, regulatory, policy, and social considerations in the development of engineering designs of sustainable waste management. Students teams design sustainable remediation or waste management plans. Concurrently scheduled with course C254. Letter grading.

M165. Environmental Nanotechnology: Implications and Applications. (4) Same as Engineering M103. Lecture, four hours; discussion, two hours; outside study, six hours. Recommended requisite: Environmental Science 125. Introduction to environmental nanotechnology as potential application of nanotechnology to environmental protection. Technical and environmental consequences of nanotechnology include three multidisciplinary areas: (1) physical, chemical, and biological properties of nanomaterials, (2) toxicology of nanomaterials, (3) use of nanotechnology for chemical and water pollution control, environmental protection, monitoring, and remediation. Letter grading.

M166. Environmental Microbiology. (4) Same as Environmental Health Sciences M166. Lecture, four hours; discussion, two hours; outside study, six hours. Recommended requisite: course 153. Microbial cells and its metabolic capabilities, microbial genetics and its potentials, growth of microbes and kinetics of growth, microbial ecology, and biotechnology of wastewater treatment, probing of microbes, public health microbiology, pathogen control. Letter grading.
M166L Environmental Microbiology Laboratory. (2) (Same as Environmental Health Sciences M166L.) Lecture, one hour; laboratory, two hours; outside study, six hours. Requisite: course M166 (may be taken concurrently). General laboratory practice within environmental microbiology, sampling of environmental samples, classical and modern molecular techniques for environmental microbiology, and introduction to environmental samples, techniques for determination of microbial activity in environmental samples, laboratory setups for studying environmental biotechnology. Letter grading.

170. Introduction to Construction Management. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Introduction to construction engineering theory, management, and techniques. Implementation of academic texts and project case studies. Discussion of building systems, building components, project delivery methods, document control, critical path method scheduling, labor management, quality management, estimating, sustainability, and cost controls. Letter grading.

180. Introduction to Transportation Engineering. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Designed for juniors/senior Civil Engineering and Environmental Engineering. Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 180. Transportation regulatory systems, general characteristics of transportation systems, including streets and highways, rail, transit, air, and water. Capacity considerations, including planning design and analysis of traffic data, signalized and non-signalized intersections, including horizontal and vertical alignment, cross sections, and pavements. Letter grading.

C181. Traffic Engineering Systems: Operations and Control. (Formerly numbered 181.) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 180. Traffic operations including traffic data collection and analysis, safety and crash studies, traffic flow theory, highway capacity analysis, signalized intersection design and analysis, and signalization and system design. Students gain understanding of basic traffic flow theory, learn to conduct traffic data collection and analysis, and to apply capacity analysis methods and simulation modeling for both highway and signalized intersections. Concurrently scheduled with course C281. Letter grading.

C182. Rigid and Flexible Pavements: Design, Materials, and Serviceability. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 180. Transportation engineers and practitioners are motivated by desire to advance in pavement design. Concurrently scheduled with course C282. Letter grading.

C185. Transportation Systems Analysis. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 180. Transportation researchers and practitioners are motivated by desire to explain spatial interactions that resulted in movement of people or goods from place to place. Such interactions become important as new technologies emerge. To explore and perceive these intricate interactions, understanding of essential nature of transportation systems to analyze and optimize design such systems becomes even more important. Introduction to fundamental concepts, methods, and principles underlying transportation systems analysis. Includes two modules, each of which focuses on one level of system analysis, traffic behavior and network. Concurrently scheduled with course C285. Letter grading.

C186. Intelligent Transportation Systems. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 180. Introduction to basic elements of intelligent transportation systems (ITS), focusing on technological, systems, and institutional aspects. Topics include systems engineering processes, advanced traveler information systems, transportation network operations, commercial vehicle operations and intermodal freight, public transportation applications, ITS and regional strategic transportation planning, travel demand management, electronic toll collection, and dynamic traffic management systems. Introduction to ITS, and other smart mobility technologies. Concurrently scheduled with course C286. Letter grades A, B, C, D, F.

C189. Special Courses in Civil and Environmental Engineering. (4) Lecture, to be arranged; discussion, to be arranged (when scheduled); outside study, to be arranged. Special topics in civil engineering for undergraduate students taught on experimental and temporary basis, such as those taught by resident and visiting faculty members. May be repeated for credit with topic or instructor change. Letter grading.

190. Professional Practice. (2) Lecture, two hours; discussion, one hour; outside study, three hours. Requisite: one course from 121, 141, 142, 151, 155 (may be taken concurrently). Sustainability in design (e.g., LEED certification for building projects), professional licensure (PE, SE, and GE), project management (proposals, scheduling, and budgeting), business, public policy, leadership, ethics, earthquake loads, wind loads, load combinations, and environmental impact reports. Letter grading.

194. Research Group Seminars: Civil and Environmental Engineering. (2 to 8) Seminar, two to eight hours; outside study, four to 16 hours. Designed for undergraduate students and members of a research group. Discussion of research methods and current literature in field or research of faculty members or students. May be repeated for credit. Letter grading.

199. Directed Research in Civil and Environmental Engineering. (1 to 8) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: Chem 119 or 129 (may be taken concurrently). Letter grading.

C200. Civil and Environmental Engineering Graduate Seminar. (2) Seminar, four hours; outside study, two hours. Various topics in civil and environmental engineering that may include earthquake engineering, environmental engineering, geotechnical engineering, hydrology and water resources engineering, materials engineering, structural engineering, and structural mechanics. May be repeated for credit. Letter grading.

C204. Structure, Processing, and Properties of Civil Engineering Materials. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Discussion of aspects of concrete, including manufacture of cement and production of concrete. Aspects of cement composition and basic chemical reactions, microstructure, properties of plastic and hardened concrete, chemical admixtures, and quality control and acceptance testing. Development and testing of fundamentals for complete understanding of overall response of all civil engineering materials. By end of term, successful utilization of fundamental materials science concepts to understand, explain, analyze, and describe engineering performance of civil engineering materials. Concurrently scheduled with course C205. Letter grading.


C206. Modeling and Simulation of Civil Engineering Materials. (4) (Formerly numbered 206) Lecture, four hours; outside study, eight hours. Requisites: Chemistry and Biochemistry 20A, 20B, Mathematics 31A, 31B, 32B, Physics 1A, 1B, 1C. Provides fundamental understanding of modeling and numerical simulations for civil engineering materials. Largely focused on porous materials. Emphasis on practical aspects of model development and implementation. Course end, students are expected to be able to independently run simulations at scale relevant to targeted problems. Concurrently scheduled with course C106. Letter grading.

C211. Machine Learning and Artificial Intelligence for Civil Engineering. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Theoretical and practical introduction to artificial intelligence and machine learning for civil engineering problems. Focus on problem and practice-solving skills. By course end, students are expected to be able to independently run machine learning analysis. Concurrently scheduled with course C111. Letter grading.


C222. Introduction to Soil Dynamics. (4) Lecture, four hours; outside study, eight hours. Requisite: course 120. Review of engineering problems involving soil dynamics, including response of sliding block-on-plane to cyclic earthquake loads, application of theories of single degree-of-freedom (DOF) system, multiple DOF system and one-dimensional wave propagation for scaled cyclic loads. Cyclic soil behavior: stress-strain-porosity water behavior, shear moduli and damping, cyclic settlement and concept of volumetric cyclic threshold shear strain. Introduction to modeling of cyclic soil behavior. Letter grading.

C223. Advanced Geotechnical Design. (4) (Formerly numbered C223.) Lecture, four hours; outside study, eight hours. Requisite: course 220. Slope stability analysis, including limit equilibrium procedures, finite element method, seepage analysis, and advanced topics such as rapid drawdown, construction of embankments on soft soil, and seismic slope stability. Laboratory design of granular and cohesive soils and excavation support systems. Advanced analysis methods and design project involving real landslide problem. Emphasis on preparation of professional engineering documents such as proposals, working drawings, and construction contracts. By course end, students are expected to be able to independently run machine learning analysis. Letter grading.

C244. Advanced Cyclic and Monotonic Soil Behavior. (4) Lecture, four hours; outside study, eight hours. Requisite: course 120. In-depth study of soil behavior under cyclic and monotonic loads. Relationships between stress, strain, pore water pressure, and volume change in range of very small and large strains. Concept of normalized static and cyclic soil behavior. Cyclic degradation and liquefaction of saturated soils. Cyclic settlement of partially saturated and dry soils. Cyclic degradation of volumetric cyclic threshold shear strain. Factors affecting shear moduli and damping during cyclic loading. Postcyclic behavior under monotonic loads. Critical review of laboratory, field, and modeling testing techniques. Letter grading.

C245. Geotechnical Earthquake Engineering. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 220, 245 (may be taken concurrently). Analysis of earthquake-induced ground failure, including soil liquefaction, cyclic softening of clays, seismic compression, surface fault rupture, and seismic slope stability. Ground response effects on earthquake ground motions. Soil-structure interaction, including soil-tunnel and soil-pile interaction, and foundation deformations under seismic loading. Letter grading.
226. Geoenvironmental Engineering. (4) Lecture, four hours; outside study, eight hours. Requisite: course 120. Field of geoenvironmental engineering involves application of scientific principles to environmental problems. Topics include environmental regulations, waste characterization, geosynthetics, soil mechanics, and problem solution using computational software. Letter grading.

227. Numerical Geotechnical and Environmental Engineering. (4) Lecture, four hours; outside study, eight hours. Requisite: course 220. Introduction to basic concepts of computer modeling of soils using finite element method, and application of numerical modeling based on elasticity and plasticity theories. Special emphasis on numerical applications and identification of modeling concerns such as instability, bifurcation, nonexistence, and nonuniqueness of solutions. Letter grading.

C228. Geohazards and Infrastructure Resilience. (4) Formerly numbered C228. Lecture, four hours; outside study, eight hours. Requisite: course 120. Geologic characterization of soil and rock units. Relationships develop between geologic structures, geohazards, and geohazard-induced geologic processes, ground and surface water, and properties of soil and rock. Geohazards associated with climate change, wildfires, landslides, volca- nism, and other types of geohazard risk on civil infrastructure and risk assessment procedures to promote resilience. Concurrently scheduled with course C128. Letter grading.

M230A. Linear Elasticity. (Same as Mechanical and Aerospace Engineering M256A.) Lecture, four hours; outside study, eight hours. Requisite: Mechan- ical and Aerospace Engineering 156A or 166A. Linear elasticity: Cartesian tensors; infinitesimal strain tensor; Cauchy stress tensor; strain energy; equilibrium equations; linear constitutive relations; plane elastostatic problems, holes, corners, inclusions, cracks; threedimensional problems of Kelvin, Boussinesq, and Cerruti. Introduction to boundary integral equation method. Letter grading.

M230B. Nonlinear Elasticity. (Same as Mechanical and Aerospace Engineering M256B.) Lecture, four hours; outside study, eight hours. Requisite: course M230A. Kinematics of deformation, material and spatial coordinates, deformation gradient tensor, non- linear and linear strain tensors, strain displacement rela- tions; balance laws; Cauchy and Piola stress. Cauchy equations of motion, balance of energy, stored energy; constitutive relations, elasticity, hyper- elasticity, thermoelasticity; linearization of field equa- tions; solutions. Letter grading.


232. Theory of Plates and Shells. (4) Lecture, four hours; outside study, eight hours. Requisite: course 130. Small and large deformation theories of thin plates; energy methods; free vibrations; membrane theory of shells; axisymmetric deformations of cylindrical and spherical shells, including bending. Letter grading.


235A. Advanced Structural Analysis. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 135A. Recommended: course 135B. Review of matrix force and displacement methods of structural analysis; variational work theorem, virtual forces, and displacement methods including the value of total and complementary potential energy, minimum total potential energy, Maxwell/Betti theorems, effects of approximations, introduction to finite element anal- ysis. Letter grading.

235B. Finite Element Analysis of Structures. (4) Lec- ture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 130, 235A. Direct energy formulations for deformable systems; solution methods for linear equations; analysis of structural systems with one-dimensional elements; introduction to variational calculus; discrete element displacement, force, and mixed methods for membrane, plate, shell structures; instability effects. Letter grading.

235C. Nonlinear Structural Analysis. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 235B. Classification of nonlinear effects; material non- linearities; conservative, nonconservative material be- havior; geometric nonlinearities, Lagrangian, Eulerian description of motion; finite element methods in geo- metrically nonlinear problems; postbuckling behavior of structures; solution of nonlinear equations; incre- mental, iterative, programming methods. Letter grading.


241. Advanced Steel Structures. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses C137, 141, 235A. Performance characterization of steel structures for static and earthquake loads. Behavior state analysis and building code provisions for special moment resisting, braced, and eccentric composite steel-con- crete structures. Letter grading.

243A. Behavior and Design of Reinforced Concrete Structural Elements. (4) Lecture, four hours; discus- sion, two hours; outside study, six hours. Requisite: course 135A. Advanced analysis of reinforced concrete structures, including stress-strain relations for plain and confined concrete, moment-curva- ture analysis of sections, and design for shear. Design of slender and low-rise walls, as well as design of beam-column joints. Introduction to displacement- based design and applications of strut-and-tie models. Letter grading.

243B. Response and Design of Reinforced Concrete Structural Systems. (4) Lecture, four hours; discus- sion, two hours; outside study, six hours. Requisites: courses 243A, 246. Information on response and be- havior of reinforced concrete buildings to earthquake ground motions. Topics include use of elastic and inelastic response spectra, role of strength, stiffness, and ductility in design, use of prescriptive versus perfor- med-based design methodologies, and applica- tion of elastic and inelastic analysis techniques for new and existing construction. Letter grading.

244. Structural Reliability. (4) Lecture, four hours; dis- cussion, two hours; outside study, six hours. Requisite: course 243B. Reliability concepts and analysis for design of structural systems. Topics include computer simulation and mathematical analysis for the purpose of assigning a probability of failure to a structural system. Letter grading.

245. Earthquake Ground Motion Characterization. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses C137, 141, 142, 235A. Spectral analysis of ground motions: response, time, and Fourier spectra. Response of structures to ground motions due to earthquakes. Computational methods to evaluate structural responses to ground motion and to develop response analysis, including evaluation of contemporary design standards. Limitations due to idealizations. Letter grading.

247. Earthquake Hazard Mitigation. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 130, and M237A or 246. Concept of seismic isolation, linear theory of base isolation, visco-elastic and hysteretic behavior, elastomeric bearings, energy dissipation devices, sliding bearings, passive energy dissipation devices, response of structures with isolation and pas- sive energy dissipation devices, static and dynamic analysis procedures, seismic design for special moment-resisting structures. Letter grading.

250A. Surface Water Hydrology. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 150. In-depth study of surface water hy- drology, including discussion and interrelationship of major topics such as rainfall and evaporation, soils and infiltration properties, runoff and snowmelt pro- cesses, Introduction to rainfall-runoff modeling, floods, and policy issues involved in water resource engineering and management. Letter grading.

250B. Groundwater Hydrology. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 250A. In-depth study of hydrogeological processes. Role of hydrology in climate system, precipitation and evaporation processes, atmospheric radiation, ex- change of mass, heat, and momentum between soil and vegetation surface and overlying atmosphere, flux and transport in turbulent boundary layer, basic re- mote sensing principles. Letter grading.

250C. Hydrometeorology. (4) Lecture, four hours; discussion, two hours; outside study, eight hours. Requisite: course 250A. In-depth study of hydrometeorological processes. Role of hydrology in climate system, precipitation and evaporation processes, atmospheric radiation, ex- change of mass, heat, and momentum between soil and vegetation surface and overlying atmosphere, flux and transport in turbulent boundary layer, basic re- mote sensing principles. Letter grading.
250D. Water Resources Systems Engineering. (4) Lecture, four hours; outside study, eight hours. Requisites: course 151. Application of mathematical programs to water resources systems. Topics include reservoir management and operation, optimal timing, sequencing and sizing of water resources projects; and multiobjective planning and conjunctive use of surface water and groundwater. Emphasis on management of water quantity. Letter grading.

251A. Rainfall-Runoff Modeling. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 250A, 253. Phenomena and mechanisms of hydrodynamic dispersion, governing equations of mass transport in porous media, various analytical and numerical solutions, determination of dispersive transport in laboratory and field experiments, biological and reactive transport in multiphase flow, remediation design, software packages and applications. Letter grading.

251B. Contaminant Transport in Groundwater. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 250B, 253. Phenomena and mechanisms of hydrodynamic dispersion, governing equations of mass transport in porous media, various analytical and numerical solutions, determination of dispersive transport in laboratory and field experiments, biological and reactive transport in multiphase flow, remediation design, software packages and applications. Letter grading.

251C. Modelling with Hydrologic Applications. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 250A, 250C. Introduction to basic physical concepts of remote sensing as they relate to surface and atmospheric hydrologic processes. Applications include radiative transfer modeling and retrieval of hydrologically relevant parameters like topography, snow moisture, snow properties, vegetation, and precipitation. Letter grading.

251D. Groundwater Data Assimilation. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 250A, 250C. Introduction to basic concepts of classical and Bayesian estimation theory for purposes of hydrologic data assimilation. Applications geared toward assimilating disparate observations into dynamic models of hydrologic systems. Letter grading.

252. Engineering Economic Analysis of Water and Environmental Planning. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: Engineering 110, one or more courses from Economics 1, 2, 11, 101. Economic theory and application in analysis in management of water and environmental planning. Emphasis on evaluation of potential water resource management and renewable resources; benefit-cost analysis with applications to water resources and environmental planning. Letter grading.


254A. Environmental Aquatic Inorganic Chemistry. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: Chemistry 20B, Mathematics 31A, 31B, Physics 1A, 1B. Equilibrium and kinetic descriptions of chemical behavior of metals and inorganic ions in natural fresh/marine surface waters and in water treatment. Processes include acid-base chemistry and alkalinity (carbonate system), complexation, adsorption, precipitation, oxidation/reduction, and photochemistry. Letter grading.

255A. Physical and Chemical Processes for Water and Wastewater Treatment. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 155, 254A. Review of momentum and mass transfer, chemical reaction engineering, coagulation and flocculation, granular filtrations, sedimentation, carbon adsorption, gas transfer, disinfection, oxidation, reaction and precipitation. Letter grading.

255B. Biological Processes for Water and Wastewater Treatment. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 254A, 255A. Fundamentals of environmental engineering microbiology; kinetics of microbial growth and biological oxidation; applications for activated sludge, gas transfer, fixed-film processes, aerobic and anaerobic digestion, sludge disposal, and biological nutrient removal. Letter grading.

258A. Membrane Separations in Aquatic Systems. (4) Lecture, four hours; outside study, eight hours. Requisite: course 254A. Applications of membrane separations to desalination, water reclamation, brine disposal, and ultrapure water systems. Discussion of invention and development of processes and applications, including membrane processes for dialysis and osmosis, and aspects of reverse osmosis and nanofiltration, ultrafiltration, and microfiltration. Letter grading.

259. Infrastructure Engineering. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 250A, 250C. Overview of fundamental science, engineering, and ecological principles for designing green infrastructure for stormwater management. Students design green infrastructure based on current data, perform engineering calculations to determine its performance, and develop critical thinking skills needed to design innovative or futuristic green infrastructure systems to mitigate adverse impact of climate change, but also remain resilient under extreme weather conditions expected during climate change. Concurrently scheduled with course C159. Letter grading.

260. Advanced Topics in Hydrology and Water Resources. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 250A, 250B, 250D. Current research topics in inverse problem of parameter estimation, experimental design, conjunctive use of surface and groundwater, multimedia water resources planning, and optimization of water resources systems. Topics may vary from term to term. Letter grading.


261A. Advanced Water Treatment Processes. (4) Lecture, four hours; outside study, eight hours. Requisite: course 255A. In-depth coverage of advanced water treatment processes, including advanced oxidation processes, photocatalysis, electrochemical treatment methods, and membrane separations. These advanced processes are increasingly necessary to adequately treat both drinking and wastewater. Study of principles fundamental to modern wastewater and drinking water treatment processes with an emphasis on optimization of water resources systems. Letter grading.

265. Sustainable Waste Management. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 254A. Fundamentals of solid waste management and recycling. Emphasis on reuse of some wastes for alternative applications or energy production. Letter grading.

266. Biotechnology. (4) Lecture, four hours; outside study, eight hours. Requisite: course 254A. Fundamentals of solid waste management and recycling. Emphasis on reuse of some wastes for alternative applications or energy production. Letter grading.

267. Environmental Applications of Geochemical Modeling. (4) Lecture, four hours; outside study, eight hours. Requisite: course 254A. Geochemical modeling is important tool for predicting environmental impacts of contamination. Hands-on experience in modeling using geochemical software packages commonly found in environmental consulting industry to gain better understanding of governing geochemical principles and their implications for movement and transformation of contaminants. Types of modeling include speciation, mineral solubility, surface complexation, reaction path, inverse mass balance, and transport models. Letter grading.

268. Advanced Biological Processes for Water and Wastewater Treatment. (4) Lecture, four hours; outside study, eight hours. Requisite: course 255B. In-depth treatment of selected topics related to biological treatment of waters and wastewaters, such as biodegradation of xenobiotics, wastewater treatment, emerging pollutants, toxicity, and nutrients. Discussion of theoretical aspects, experimental observations, and recent literature. Application to important and emerging wastewater treatment technologies. Letter grading.

269. Introduction to Atmospheric Chemistry. (4) Same as Atmospheric and Oceanic Sciences M202A.) Lecture, three hours. Requisite for under-graduates: Chemistry 20B. Principles of chemical ki-netics, thermochromery, spectroscopy, and photo-chemistry; chemical composition and history of Earth’s atmosphere; biogeochemical cycles of key atmospheric constituents; basic photochemistry of troposphere and stratosphere; uniform atmosphere processes; chemical processes; air pollution; chemistry and cli-mate. S/U or letter grading.

M262B. Atmospheric Diffusion and Air Pollution. (4) Same as Atmospheric and Oceanic Sciences M224B.) Lecture, three hours. Nature and sources of atmospheric pollution; diffusion from point, line, and area sources; pollution dispersion in urban complexes; meteorological factors; pollution potential; measurement of meteorological aspects of air pollution. S/U or letter grading.

270A. Geophysical Fluid Dynamics. (4) Lecture, four hours; outside study, eight hours. Designed for graduate students. Transport processes in surface water, groundwater, and atmosphere. Emphasis on exchanges across phase boundaries: sediment/water interface; air/water gas exchange; particles, droplets, and bubbles; and phase transitions. Impact of reactions on transport; linkages between physical, chemical, and biological processes. Letter grading.

270B. Advanced Topics in Transport in Environmental Interfaces. (4) Lecture, four hours; outside study, eight hours. Requisite: course 254A. Emphasis on numerical techniques to solve nonlinear partial differential equations and their application to environmental engineering problems. Letter grading.

271. Hydrology. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 150. Overview of fundamental hydrology, engineering microbiology; kinetics of microbial growth and biodegradation of xenobiotics, pharmaceuticals, and biodegradable plastics. Letter grading.

272. Sustainable Water Management. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Introduction to environmental engineering. Management of solid wastes, some of which are haz-ardous. Study of hazardous and municipal solid waste management technologies with particu-lar emphasis on resource recovery of wastes for alternative applications or energy production. Letter grading.

273. Water Treatment. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Emphasis on treatment of selected topics involving transport phe-nomena at environmental interfaces between solid, fluid, and gas phases, such as aquatic sediments, po-rophyric sediments, and riparian sediments. Discussion of theoretical models and experimental observations. Application to important environmental engineering problems. Letter grading.

275. Sustainable Waste Management. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Emphasis on resource recovery of wastes for alternative applications or energy production. Letter grading.

276. Environmental Biotechnology. (4) Lecture, four hours; outside study, eight hours. Requisite: course 254A. Environmental biotechnology—concept and potential, biotechnology of pollution control, bioremediation, biomass conversion; composting, bioconversion, biodegradation and its model-ing. Letter grading.

277. Advanced Hydrologic Processes. (4) Lecture, four hours; outside study, eight hours. Emphasis on resource recovery of wastes for alternative applications or energy production. Letter grading.

278. Environmental Engineering. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Emphasis on resource recovery of wastes for alternative applications or energy production. Letter grading.

279. Atmospheric and Oceanic Sciences. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Emphasis on resource recovery of wastes for alternative applications or energy production. Letter grading.

C264. Sustainable Waste Management. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Emphasis on resource recovery of wastes for alternative applications or energy production. Letter grading.

M274. Advanced Hydrologic Processes. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Emphasis on resource recovery of wastes for alternative applications or energy production. Letter grading.

M275. Advanced Hydrologic Processes. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Emphasis on resource recovery of wastes for alternative applications or energy production. Letter grading.
C282. Rigid and Flexible Pavements: Design, Materials, and Environmental Impacts. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Correlation, analysis, and metrciation of aspects of pavement design, including materials selection and traffic loading and volume. Special attention to aspects of pavement distress/serviceability and factoring of these into metrics of pavement performance. Discussion of potential choices of pavement materials (i.e., asphalt and concrete) and their specific strengths and weaknesses in paving applications. Unification and correlation of different variables that influence pavement performance and highlight their relevance in pavement design. Concurrently scheduled with course C182. Letter grading.

C285. Transportation Systems Analysis. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 180. Transportation researchers and practitioners are motivated by desire to explain spatial interactions that resulted in movement of people or goods from place to place. Such interactions become more intricate as new technologies emerge. To explore and perceive these intricate interactions, understanding of essential nature of transportation systems to analyze and optimally design such systems is needed more than ever. Introduction to fundamental concepts, methods, and principles underlying transportation systems analysis. Includes two modules, each of which focuses on one level of system analysis: traveler behavior and network. Concurrently scheduled with course C185. Letter grading.

C286. Intelligent Transportation Systems. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 180. Introduction to basic elements of intelligent transportation systems (ITS), focusing on technological, systems, and institutional aspects. Topics include systems engineering processes, advanced traveler information systems, transportation network operations, commercial vehicle operations and intermodal freight, public transportation applications, ITS and regional strategic transportation planning, travel demand management, electronic toll collection, and road-pricing, connected and automated vehicles (CAV), data access and exchanges, cybersecurity for ITS, and other smart mobility technologies. Concurrently scheduled with course C186. Letter grading.

M267. Travel Behavior Analysis. (4) (Same as Public Policy M221 and Urban Planning M223) Lecture, three hours. Requisites: Public Policy 201 or M201A, and 203, or Urban Planning 207 and 220B. Descriptions of travel patterns in metropolitan areas, recent trends and projections into future, overview of travel forecasting methods, trip generation, trip distribution, mode split traffic assignment, critique of traditional travel forecasting methods and new approaches to travel behavior analysis. Letter grading.

296. Advanced Topics in Civil Engineering. (2 to 4) Seminar, to be arranged. Discussion of current research and literature in research specialty of faculty member teaching course. S/U grading.

298. Seminar: Engineering. (2 to 4) Seminar, to be arranged. Limited to graduate civil engineering students. Seminars may be organized in advanced technical fields. If appropriate, field trips may be arranged. May be repeated with topic change. Letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

495. Teaching Assistant Training Seminar. (2) Seminar, two hours. Preparation: appointment as teaching assistant in Civil and Environmental Engineering Department. Seminar on communication of civil engineering principles, concepts, and methods; teaching assistant preparation; organization, and presentation of material, including use of visual aids; grading, advising, and rapport with students. S/U grading.

596. Directed Individual or Tutorial Studies. (2 to 8) Tutorial, to be arranged. Limited to graduate civil engineering students. Petition forms to request enrollment may be obtained from assistant dean, Graduate Studies. Supervised investigation of advanced technical problems. S/U grading.

597A. Preparation for MS Comprehensive Examination. (2 to 12) Tutorial, to be arranged. Limited to graduate civil engineering students. Reading and preparation for MS comprehensive examination. S/U grading.

597B. Preparation for PhD Preliminary Examinations. (2 to 16) Tutorial, to be arranged. Limited to graduate civil engineering students. Reading and preparation for PhD comprehensive examination. S/U grading.

598. Research and Preparation for MS Thesis. (2 to 12) Tutorial, to be arranged. Limited to graduate civil engineering students. Supervised independent research for MS candidates, including thesis prospectus. S/U grading.

599. Research and Preparation for PhD Dissertation. (2 to 16) Tutorial, to be arranged. Limited to graduate civil engineering students. Usually taken after students have been advanced to candidacy. S/U grading.

Undergraduate Study

Students considering a major in the department should consult with the adviser as soon as possible in their UCLA career, but in no case later than the point at which they are about to take upper-division courses.

Note: Students in the Greek, Latin, and Greek and Latin majors are permitted to take Greek 200A, 200B, 200C and Latin 200A, 200B, 200C with consent of the instructor.

Graduate Study

Students can earn Master of Arts degrees in Classics (Greek and Latin), in Greek, or in Latin only after they have been admitted to the PhD program.

Undergraduate Majors

Classical Civilization BA

The civilizations of ancient Greece and Rome have made important contributions to the political, social, artistic, and intellectual development of the Western world. The purpose of the Classical Civilization major is to provide students with a formal and balanced introduction to the historical and cultural experiences of the ancient Greeks and Romans. The program of study is structured, yet not rigid. Lower-division survey courses and requirements in elementary language study, ancient history, and classical art establish an essential background of knowledge, while electives encourage individual and specialized interests. The program offers a
broad range of courses in the fields of language, literature, history, mythology, religion, philosophy, art, and archaeology. The major serves as excellent and rewarding preparation for a professional career in medicine, law, business, journalism, communications, or the arts.

Capstone Major
The Classical Civilization major is a designated capstone major. Undergraduate students take a capstone seminar in which they use the skills and expertise acquired in earlier coursework to research, analyze, and complete a written paper or project. They identify and analyze ancient classical documents, material evidence, or other forms of primary sources and demonstrate their critical skills by engaging in presentations and weekly discourse with their peers.

Learning Outcomes
The Classical Civilization major has the following learning outcomes:

- Demonstrated specific skills and expertise, including research, analysis, and writing
- Identification and analysis of appropriate ancient sources, material evidence, and other primary documents appropriate to the field
- Engagement with peers through presentation, discussion, and critique of student work
- Conception and execution of a project that identifies and engages with a specialized topic
- Working knowledge of scholarly discourse relative to a specialized topic

Entry to the Major
Transfer Students
Transfer applicants to the Classical Civilization major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one classical Greek culture course, one Roman civilization course, and one course in Greek or Roman literature in translation, classical mythology, or classical archaeology.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements
Preparation for the Major
Required: Classics 10, 20; Greek 1, 2, 3, 20, or equivalent. Greek 16 may be substituted for Greek 1, 2, 3.

Greek BA
Capstone Major
The Greek major is a designated capstone major. Undergraduate students take a capstone seminar in which they use the skills and expertise acquired in earlier coursework to research, analyze, and complete a written paper or project. They identify and analyze ancient classical documents, material evidence, or other forms of primary sources and demonstrate their critical skills by engaging in presentations and weekly discourse with their peers.

Learning Outcomes
The Greek major has the following learning outcomes:

- Demonstrated specific skills and expertise, including research, analysis, and writing
- Identification and analysis of appropriate ancient sources, material evidence, and other primary documents appropriate to the field
- Engagement with peers through presentation, discussion, and critique of student work
- Conception and execution of a project that identifies and engages with a specialized topic
- Working knowledge of scholarly discourse relative to a specialized topic

Entry to the Major
Transfer Students
Transfer applicants to the Greek major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one year of Greek and related courses in civilization, culture, history, linguistics, literature, and closely related languages.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements
Preparation for the Major
Required: Classics 10, 20; Greek 1, 2, 3, 20, or equivalent. Greek 16 may be substituted for Greek 1, 2, 3.

The Major
Required: (1) Seven upper-division Greek courses, including course 110; Greek 197 and 199 may be applied only by petition; (2) three upper-division courses in classical civilization and/or ancient history (History 112A through M112E, 113A, 113B, 114A, 114B, 114C, 115); (3) one capstone seminar (Classics 191).

Honors Program
Requirements
All honors students are required to take Classics 191 (or an equivalent undergraduate seminar) in their junior year before beginning work on the honors thesis. Students must then enroll in Classics 198A and 198B in consecutive terms, in which they write the thesis under the direct supervision of a faculty member. They may take courses 198A and 198B concurrently or be exempt from course 198A only with approval of the faculty undergraduate adviser.

In course 198A students submit an annotated bibliography and preliminary outline of their thesis. In course 198B, they submit at least one initial draft and the final revised version of the thesis. Only course 198B may be applied toward the upper-division classical civilization requirement for departmental majors.

Policy
The Major
All other courses in the 190 series may be substituted only by petition.

Honors Program
Admission
The honors program is open to Classical Civilization majors with a cumulative grade-point average of 3.5 or better in departmental courses and an overall GPA of 3.25 or better. Students with lower GPAs may petition for admission to the program, but these grade-point averages must be achieved before graduation in order to qualify for honors.

Requirements
To qualify for graduation with departmental honors, students must (1) have a cumulative grade-point average of 3.5 or better in departmental courses and an overall GPA of 3.25 or better and (2) complete Classics 198A and 198B with grades of A– or better.

To qualify for graduation with departmental honors, students must (1) have a cumulative GPA of 3.85 or better in departmental courses and an overall GPA of 3.65 or better and (2) complete Classics 198A and 198B with grades of A– or better.

Conception and execution of a project that identifies and engages with a specialized topic

Engagement with peers through presentation, discussion, and critique of student work

Identification and analysis of appropriate ancient sources, material evidence, and other forms of primary sources and demonstrate their critical skills by engaging in presentations and weekly discourse with their peers.

Learning Outcomes
The Classical Civilization major has the following learning outcomes:

- Demonstrated specific skills and expertise, including research, analysis, and writing
- Identification and analysis of appropriate ancient sources, material evidence, and other primary documents appropriate to the field
- Engagement with peers through presentation, discussion, and critique of student work
- Conception and execution of a project that identifies and engages with a specialized topic
- Working knowledge of scholarly discourse relative to a specialized topic

Entry to the Major
Transfer Students
Transfer applicants to the Greek major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one year of Greek and related courses in civilization, culture, history, linguistics, literature, and closely related languages.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements
Preparation for the Major
Required: Classics 10, 20; Greek 1, 2, 3, 20, or equivalent. Greek 16 may be substituted for Greek 1, 2, 3.

The Major
Required: (1) Seven upper-division Greek courses, including course 110; Greek 197 and 199 may be applied only by petition; (2) three upper-division courses in classical civilization and/or ancient history (History 112A through M112E, 113A, 113B, 114A, 114B, 114C, 115); (3) one capstone seminar (Classics 191).

Honors Program
Requirements
All honors students are required to take Classics 191 (or an equivalent undergraduate seminar) in their junior year before beginning work on the honors thesis. Students must then enroll in Classics 198A and 198B in consecutive terms, in which they write the thesis under the direct supervision of a faculty member. They may take courses 198A and 198B concurrently or be exempt from course 198A only with approval of the faculty undergraduate adviser.

In course 198A students submit an annotated bibliography and preliminary outline of their thesis. In course 198B, they submit at least one initial draft and the final revised version of the thesis. Only course 198B may be applied toward the upper-division classical civilization requirement for departmental majors.

Policy
The Major
All other courses in the 190 series may be substituted only by petition.

Honors Program
Admission
To qualify for graduation with departmental honors, students must (1) have a cumulative grade-point average of 3.5 or better in departmental courses and an overall GPA of 3.25 or better and (2) complete Classics 198A and 198B with grades of A– or better.

To qualify for graduation with departmental honors, students must (1) have a cumulative GPA of 3.85 or better in departmental courses and an overall GPA of 3.65 or better and (2) complete Classics 198A and 198B with grades of A– or better.

Conception and execution of a project that identifies and engages with a specialized topic

Engagement with peers through presentation, discussion, and critique of student work

Identification and analysis of appropriate ancient sources, material evidence, and other forms of primary sources and demonstrate their critical skills by engaging in presentations and weekly discourse with their peers.

Learning Outcomes
The Classical Civilization major has the following learning outcomes:

- Demonstrated specific skills and expertise, including research, analysis, and writing
- Identification and analysis of appropriate ancient sources, material evidence, and other primary documents appropriate to the field
- Engagement with peers through presentation, discussion, and critique of student work
- Conception and execution of a project that identifies and engages with a specialized topic
- Working knowledge of scholarly discourse relative to a specialized topic

Entry to the Major
Transfer Students
Transfer applicants to the Greek major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one year of Greek and related courses in civilization, culture, history, linguistics, literature, and closely related languages.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements
Preparation for the Major
Required: Classics 10, 20; Greek 1, 2, 3, 20, or equivalent. Greek 16 may be substituted for Greek 1, 2, 3.

The Major
Required: (1) Seven upper-division Greek courses, including course 110; Greek 197 and 199 may be applied only by petition; (2) three upper-division courses in classical civilization and/or ancient history (History 112A through M112E, 113A, 113B, 114A, 114B, 114C, 115); (3) one capstone seminar (Classics 191).

Honors Program
Requirements
All honors students are required to take Classics 191 (or an equivalent undergraduate seminar) in their junior year before beginning work on the honors thesis. Students must then enroll in Classics 198A and 198B in consecutive terms, in which they write the thesis under the direct supervision of a faculty member. They may take courses 198A and 198B concurrently or be exempt from course 198A only with approval of the faculty undergraduate adviser.

In course 198A students submit an annotated bibliography and preliminary outline of their thesis. In course 198B, they submit at least one initial draft and the final revised version of the thesis. Only course 198B may be applied toward the upper-division classical civilization requirement for departmental majors.

Policy
The Major
All other courses in the 190 series may be substituted only by petition.

Honors Program
Admission
To qualify for graduation with departmental honors, students must (1) have a cumulative grade-point average of 3.5 or better in departmental courses and an overall GPA of 3.25 or better and (2) complete Classics 198A and 198B with grades of A– or better.

To qualify for graduation with departmental honors, students must (1) have a cumulative GPA of 3.85 or better in departmental courses and an overall GPA of 3.65 or better and (2) complete Classics 198A and 198B with grades of A– or better.

Conception and execution of a project that identifies and engages with a specialized topic

Engagement with peers through presentation, discussion, and critique of student work

Identification and analysis of appropriate ancient sources, material evidence, and other forms of primary sources and demonstrate their critical skills by engaging in presentations and weekly discourse with their peers.

Learning Outcomes
The Classical Civilization major has the following learning outcomes:
Honors Program

Admission
The honors program is open to Greek majors with a cumulative grade-point average of 3.5 or better in departmental courses and an overall GPA of 3.25 or better. Students with lower GPAs may petition for admission to the program, but these grade-point averages must be achieved before graduation in order to qualify for honors.

Requirements
To qualify for graduation with departmental honors, students must (1) have a cumulative grade-point average of 3.5 or better in departmental courses and an overall GPA of 3.25 or better and (2) complete Classics 198A and 198B with grades of A− or better.

To qualify for graduation with departmental honors, students must (1) have a cumulative GPA of 3.85 or better in departmental courses and an overall GPA of 3.65 or better and (2) complete Classics 198A and 198B with grades of A or better.

Greek and Latin BA

Capstone Major
The Greek and Latin major is a designated capstone major. Undergraduate students take a capstone seminar in which they use the skills and expertise acquired in earlier coursework to research, analyze, and complete a written paper or project. They identify and analyze ancient classical documents, material evidence, or other forms of primary sources and demonstrate their critical skills by engaging in presentations and weekly discourse with their peers.

Learning Outcomes
The Greek and Latin major has the following learning outcomes:

• Demonstrated specific skills and expertise, including research, analysis, and writing
• Identification and analysis of appropriate ancient sources, material evidence, and other primary documents appropriate to the field
• Engagement with peers through presentation, discussion, and critique of student work
• Conception and execution of a project that identifies and engages with a specialized topic
• Working knowledge of scholarly discourse relative to a specialized topic

Entry to the Major

Transfer Students
Transfer applicants to the Greek and Latin major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one year of Greek and of Latin and related courses in civilization, culture, history, linguistics, literature, and closely related languages.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements
Preparation for the Major
Required: Classics 10, 20; Greek 1, 2, 3, 20 and Latin 1, 2, 3, 20, or equivalent, Greek 16 may be substituted for Greek 1, 2, 3.

The Major
Required: (1) Eight upper-division Greek and Latin courses (of which at least four must be in each language), including Greek 110 or Latin 110; Greek and/or Latin 197 and 199 may be applied only by petition; (2) three upper-division courses in classical civilization and/or ancient history (History 112A through M112E, 113A, 113B, 114A, 114B, 114C, 115); (3) one capstone seminar (Classics 191).

Honors Program

Requirements

All honors students are required to take Classics 191 (or an equivalent undergraduate seminar) in their junior year before beginning work on the honors thesis. Students must then enroll in Classics 198A and 198B in consecutive terms, in which they write the thesis under the direct supervision of a faculty member. They take courses 198A and 198B concurrently or be exempt from course 198A only with approval of the faculty undergraduate adviser. In course 198A students submit an annotated bibliography and preliminary outline of their thesis. In course 198B, they submit at least one initial draft and the final revised version of the thesis. Only course 198B may be applied toward the upper-division classical civilization requirement for departmental majors.

Policies

The Major
Courses in related fields not offered by the department may be substituted by petition and with approval of the faculty undergraduate adviser

Honors Program

Admission
The honors program is open to Greek and Latin majors with a cumulative grade-point average of 3.5 or better in departmental courses and an overall GPA of 3.25 or better. Students with lower GPAs may petition for admission to the program, but these grade-point averages must be achieved before graduation in order to qualify for honors.

Requirements
To qualify for graduation with departmental honors, students must (1) have a cumulative grade-point average of 3.5 or better in departmental courses and an overall GPA of 3.25 or better and (2) complete Classics 198A and 198B with grades of A− or better.

To qualify for graduation with departmental honors, students must (1) have a cumulative GPA of 3.85 or better in departmental courses and an overall GPA of 3.65 or better and (2) complete Classics 198A and 198B with grades of A or better.

Latin BA

Capstone Major
The Latin major is a designated capstone major. Undergraduate students take a capstone seminar in which they use the skills and expertise acquired in earlier coursework to research, analyze, and complete a written paper or project. They identify and analyze ancient classical documents, material evidence, or other forms of primary sources and demonstrate their critical skills by engaging in presentations and weekly discourse with their peers.

Learning Outcomes
The Latin major has the following learning outcomes:

• Demonstrated specific skills and expertise, including research, analysis, and writing
• Identification and analysis of appropriate ancient sources, material evidence, and other primary documents appropriate to the field
• Engagement with peers through presentation, discussion, and critique of student work
• Conception and execution of a project that identifies and engages with a specialized topic
• Working knowledge of scholarly discourse relative to a specialized topic

Entry to the Major

Transfer Students
Transfer applicants to the Latin major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one year of Latin and related courses in civilization, culture, history, linguistics, literature, and closely related languages.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements
Preparation for the Major
Required: Classics 10, 20; Latin 1, 2, 3, 20, or equivalent. Latin 16 may be substituted for Latin 1, 2, 3.

The Major
Required: (1) Seven upper-division Latin courses, including course 110; Latin 197 and 199 may be applied only by petition; (2) three upper-division courses in classical civilization and/or ancient history (History 112A through M112E, 113A, 113B, 114A, 114B, 114C, 115); (3) one capstone seminar (Classics 191).

Honors Program

Requirements

All honors students are required to take Classics 191 (or an equivalent undergraduate seminar) in their junior year before beginning work on the honors thesis. Students must then enroll in Classics 198A and 198B concurrently or be exempt from course 198A only with approval of the faculty undergraduate adviser. In course 198A students submit an annotated bibliography and preliminary outline of their thesis. In course 198B, they submit at least one initial draft and the final revised version of the thesis. Only course 198B may be applied toward the upper-division classical civilization requirement for departmental majors.
may take courses 198A and 198B concurrently or be exempt from course 198A only with approval of the faculty undergraduate adviser. In course 198A students submit an annotated bibliography and preliminary outline of their thesis. In course 198B, they submit at least one initial draft and the final revised version of their thesis. Only course 198B may be applied toward the upper-division classical civilization requirement for departmental majors.

Policies

The Major
Courses in related fields not offered by the department may be substituted by petition and with approval of the faculty undergraduate adviser.

Honors Program

Admission
The honors program is open to Latin majors with a cumulative grade-point average of 3.5 or better in departmental courses and an overall GPA of 3.25 or better. Students with lower GPAs may petition for admission to the program, but these grade-point averages must be achieved before graduation in order to qualify for honors.

Requirements
To qualify for graduation with departmental honors, students must (1) have a cumulative grade-point average of 3.5 or better in departmental courses and an overall GPA of 3.25 or better and (2) complete Classics 198A and 198B with grades of A– or better.

To qualify for graduation with departmental highest honors, students must (1) have a cumulative GPA of 3.85 or better in departmental courses and an overall GPA of 3.65 or better and (2) complete Classics 198A and 198B with grades of A.

Undergraduate Minors

Classical Civilization Minor
The Classical Civilization minor is designed to recognize a serious commitment to the study of the cultures and civilizations of ancient Greece and Rome. Lower-division survey courses in historical studies, classical literature, mythology, and film provide an essential introduction to the imagination and power of the ancient world. Students may fulfill upper-division requirements from a variety of courses in classical civilization and related fields, including political and social history, literature, art and archaeology, religion, mythology, philosophy, and cultural studies of ethnicity, gender, and sexuality in antiquity.

Admission
To enter the minor, students must have an overall grade-point average of 2.0 or better.

The Minor

Required Lower-Division Courses (15 units):
Classics 10, 20, and one course from 30, 40W, 41W, 42, 51A, 51B, 60.

Required Upper-Division Courses (20 units):
Five upper-division courses in classical civilization offered by the department.

Policies

One course in a related field may be substituted with approval of the faculty undergraduate adviser. Classics 191 may be applied, but all other courses in the 190 series may be substituted only by petition.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Greek Language and Culture Minor
The Greek Language and Culture minor is designed to recognize a serious commitment to the study of ancient or modern Greek. After completing either lower-division ancient Greek (Greek 2, 3, 20) or modern Greek (Greek 9A, 9B, 9C), students select departmental upper-division courses centered on Greek texts, culture, and contexts. Students may take reading courses in ancient Greek prose and poetry that provide close analysis of individual texts, with attention to their historical, literary, and cultural context, and/or they may choose to take courses in translation that ground their language training within the broader scope of Hellenic studies.

Admission
To enter the minor, students must have an overall grade-point average of 2.0 or better.

The Minor

Required Lower-Division Courses (14 units):
Greek 2, 3, and 20, or 9A, 9B, and 9C, or equivalent. Greek 16 may be substituted for Greek 2 and 3.

Required Upper-Division Courses (20 units):
Two courses selected from Greek 100 through 187; three additional upper-division courses in Greek or classical civilization.

Policies

Courses in related fields not offered by the department may be substituted by petition and with approval of the undergraduate adviser. A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Latin Language and Culture Minor
The Latin Language and Culture minor is designed to recognize a serious commitment to the study of the Latin language. After a year of elementary Latin (Latin 1, 2, 3) or its equivalent, students select departmental upper-division reading courses in classical (and/or late antique and medieval) Latin prose and poetry that provide close analysis of individual texts, with attention to their historical, literary, and cultural context and/or they may choose to take courses in translation that ground their language training within the broader scope of Roman studies and classical reception.

Subjects of study include Roman comedy, epic, lyric, elegy, satire, history, rhetoric, philosophy, epistolography, and the novel.

Admission
To enter the minor, students must have an overall grade-point average of 2.0 or better.

The Minor

Required Lower-Division Courses (14 units):
Latin 2, 3, 20, or equivalent. Latin 16 may be substituted for Latin 2 and 3.

Required Upper-Division Courses (20 units):
Two courses selected from Latin 100 through 187; three additional upper-division courses in Latin or classical civilization.

Policies

Courses in related fields not offered by the department may be substituted by petition and with approval of the undergraduate adviser. A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Majors

Classics MA, CPhil, PhD

Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announce-
Greek MA

The Master of Arts degree in Greek may only be earned after students have been admitted to the PhD program in Classics.

Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Latin MA

The Master of Arts degree in Latin may only be earned after students have been admitted to the PhD program in Classics.

Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Classics

Lower-Division Courses

10. Discovering Greeks. (5) Lecture, three hours; discussion, one hour. Knowledge of Latin not required. Study of Greek life and culture from age of Homer to Roman conquest. Readings focus on selections from works of ancient authors in translation. Lectures illustrated with images of art, architecture, and material culture. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP or letter grading.

20. Discovering Romans. (5) Lecture, three hours; discussion, one hour. Knowledge of Latin not required. Study of Roman life and culture from time of city’s legendary foundations to end of classical antiquity. Readings focus on selections from works of ancient authors in translation. Lectures illustrated with images of art, architecture, and material culture. P/NP or letter grading.

30. Classical Mythology. (5) Lecture, three hours; discussion, one hour. Introduction to myths and legends of ancient Greece and/or Rome, role of those stories in their societies, and modern approaches to studying them. P/NP or letter grading.

40W. Reading Greek Literature: Writing-Intensive. (5) Lecture, two hours; discussion, two hours. Requisite: English Composition 3. Exploration in detail and from variety of critical perspectives of carefully selected literary texts characteristic of ancient Greek and significant in Western literary tradition. Satisfies Writing II requirement. Letter grading.

41W. Reading Roman Literature: Writing-Intensive. (5) Lecture, two hours; discussion, two hours. Requisite: English Composition 3. Exploration in detail and from variety of critical perspectives of carefully selected set of literary texts characteristic of ancient Rome and significant in Western literary tradition. Satisfies Writing II requirement. Letter grading.

42. Cinema and Ancient World. (5) Lecture/screenings, five hours; discussion, one hour. Use of popular culture and cinema to introduce students to ancient Greek and/or Roman culture, focusing on dissection of instructor. P/NP or letter grading.

47. Medical Terminology: Origins, Nature, and Practice. (5) Lecture, three hours, introduction to specialized vocabulary of health sciences, which is rooted in Greek and Latin languages and in those two cultures from which much of history of modern medicine is derived. Students gain working knowledge of fundamental terminology used in medicine and health sciences as well as how this terminology has been composed. Development of ability to interpret and pronounce words. Students apply linguistic rules and how they operate in English and field-specific vocabulary to understand and remember various health science fields. Study of etymological origins of fundamental terminology as mnemonic aid for learning and recalling this terminology, and also to serve as mechanism for connecting health/medical professions to humanistic origins. P/NP or letter grading.

48. Ancient Greek and Roman Medicine. (5) Lecture, three hours; discussion, one hour. Introduction to Greek and Roman medicine in its intellectual and cultural context. Examination of construction of concepts such as health, disease, physician, man, woman, cause, and difference. Readings from Greek literature and healing in cult of Asclepius. Readings of texts from Hippocratic corpus through late antiquity. Intense close to practice and theory of 5th-century BCE Greek physician, relating them to medical practice, competition for students and patients, intellectual display, developing scientific methods, ethnography, and Greek philosophy. Discussion of plagues as attempts to view such outbreaks as social phenomena. Examination of how Hippocratic understanding of how—or whether—we can know about what happens inside body was developed and challenged in 3rd-century BCE Alexandria. Study of Prince of Physicians, Galen, champion of Hippocratic medicine, influential into 18th century. P/NP or letter grading.

51A. Art and Archaeology of Ancient Greece. (5) Lecture, three hours; discussion, one hour. Survey of major period, theme, or medium of Greek art and archaeology at discretion of instructor. P/NP or letter grading.

51B. Art and Archaeology of Ancient Rome. (5) Lecture, three hours; discussion, one hour. Survey of major period, theme, or medium of Roman art and archaeology at discretion of instructor. P/NP or letter grading.

60. Fantastic Journey: Antiquity and Beyond. (5) Lecture, two and one half hours; discussion, one hour. Investigation of phenomenon of fantastic or imaginary journey as presented in Greek myth and Trotter’s 2001: A Space Odyssey. Examination of ways in which travel to strange or new worlds is presented through number of texts (and occasionally films) across different cultures and periods, with focus primarily on antiquity but also looking at how important motifs from ancient Greek and Roman travel narratives have endured to present day; issues include cultural relativism, what makes space either familiar or alien, re-building of home in fantastic territories, methods of travel (both fantastic and mundane), methods of measuring time and distance across space, modern classifications of fantasy, and to what extent these terms are applicable to ancient world. P/NP or letter grading.

88A-88Z. Lower-Division Seminars. (4 each) Seminar, three hours. Variable topics; consult Schedule of Classes or department for topics to be offered in specific term. P/NP or letter grading.

88GE. General Education Seminar Sequences. (5) Seminar, three hours. Focused study of one aspect of ancient Greek and Roman culture or reception of classical tradition. Topics are interdisciplinary in nature (literature, arts, religion, politics, culture) and make connections between ancient and postclassical eras. Topics include rediscovery of Pompeii and Hercula- neum; Roman religion and literature; pleasures of Greek or Roman body; and 18th-century British literature and reception of classics. P/NP or letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

98HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

M114A. History of Ancient Mediterranean World. (4) (Same as History M112C.) Lecture, two hours; discussion, one hour. Enforced corequisite: course M114A. Examination of history, art, and monuments of ancient Rome through daily lectures and archaeological excursions. Field trips outside Rome to Pompeii, Hadrian’s Villa, and ancient Ostia. Reception and ruins of Roman antiquity in medieval, Renaissance, and modern eras explored in their historical context. Part of UCLA Summer Travel Program. P/NP or letter grading.

M114B. History and Monuments of Rome: Field Studies. (4) (Same as History M112E.) Fieldwork, five hours. Enforced corequisite: course M114A. Examination of history, art, and monuments of ancient Rome through daily lectures and archaeological sites. Field trips outside Rome to Pompeii, Hadrian’s Villa, and ancient Ostia. Reception and ruins of Roman antiquity in medieval, Renaissance, and modern eras explored in their historical context. Part of UCLA Summer Travel Program. P/NP or letter grading.

M121. Ancient and Medieval Political Theory. (4) (Same as Political Science M111A.) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Exposition and critical analysis of major thinkers such as Plato, Aristotle, Thucydides, St. Augustine, Aquinas, Machiavelli, and More and questions such as forms of government, citizenship, justice, happiness, rhetoric, religion, emotion. P/NP or letter grading.

M124. Modern Receptions of Ancient Political Thought. (4) (Same as Political Science M111B.) Lecture, three hours. Designed for juniors/seniors. Study of how Western culture has conceived and reinterpreted political thought of ancient Greeks and Romans. Topics include examination of influential case(s) of modern reception of classical antiquity. P/NP or letter grading.

M125. Invention of Democracy. (5) (Same as Political Science M112B.) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Democracy was invented in ancient Greece as political form grounded on equality before law, citizenship, and freedom. It came into existence as struggle by demos, people, aware of its excellence and proud of its power, kratos. It became only regime capable of including all members of community while disregarding wealth, status, and diverging interests. Examination of history of political theory of ancient democracy. P/NP or letter grading.

130. Race, Ethnicity, Identity in Greco-Roman World. (4) Lecture, two and one half hours. Examination of construction of racial and ethnic identities in Greco-Roman world and ways in which these terms in study of antiquity have influenced Western constructions of race. Case studies include both ethnographic constructions of other by dominant groups (e.g. invention of stereotypes like barbarian or savage) and experiences of members of marginalized groups...
within dominant cultures (e.g. Egyptian identity in Helenistic Egypt, Greek, Syrian, and Jewish identity in Roman Empire). P/NP or letter grading.

M133. Ancient Historiography: Theory and Practice. (4) (Same as History M113C.) Lecture, three hours. Study of theory, practice, and development of writing history in cultures of ancient Greece and Rome. Focus is literary, centered on questions of genre and rhetoric. Encourages appreciation for how ancient historiography relates to other ancient genres (epic, biography, oratory). Readings may draw widely from various authors, including Herodotus, Thucydides, Livy, Tacitus, and others. P/NP or letter grading.

137. Ancient Lives: Art of Biography. (4) Lecture, three hours. Study of origins, development, and practice of writing lives (i.e., biography) represented in cultures of ancient Greece and Rome. Readings include examples from Greek and Roman lives of Plutarch and lives of Roman Emperors (Caesars) by Suetonius. Comparisons with modern biographical traditions in literature and film. P/NP or letter grading.


140. Topics in History of Greek Literature. (4) Lecture, three hours. Requires: course 10 or 40W. Investigation of specific issue in understanding of Greek literature, such as definition of one genre or evaluation of particular author. May be repeated for credit with topic change. P/NP or letter grading.

141. Topics in History of Latin Literature. (4) Lecture, three hours. Requires: course 20 or 41W. Investigation of specific issue in interpretation of Latin literature, such as definition of one genre or evaluation of particular author. May be repeated for credit with topic change. P/NP or letter grading.

142. Ancient Epic. (4) Lecture, three hours. Requires: one course from 10, 20, 30, 40W, or 41W. Homer’s Iliad and Odyssey; Vergil’s Aeneid, and Ovid’s Metamorphoses, studied in translation. P/NP or letter grading.

143A. Ancient Tragedy. (4) Lecture, three hours. Requires: course 10 or 40W. Survey of tragedy from 5th-century Athens through later antiquity. P/NP or letter grading.

143B. Ancient Comedy. (4) Lecture, three hours. Requires: course 10 or 40W. Survey of comedy as it developed in Greek and Roman worlds. P/NP or letter grading.

144. Topical Studies in Ancient Culture. (4) Lecture, three hours. Requires: one course from 10, 20, 30, 40W, or 41W. Investigation of one problem in ancient culture that involves discussion of both Greek and Roman material. May be repeated for credit with topic change. P/NP or letter grading.

M145A. Ancient Greek and Roman Philosophy. (4) (Same as Philosophy M103A.) Lecture, three hours. Study of some major Greek and Roman philosophical texts, including those of pre-Socratics, Plato, Aristotle, and Hellenistic philosophers, with emphasis on historical and cultural setting of texts, their literary form, interrelations, and contribution to discussion of basic philosophical issues. P/NP or letter grading.

M145B. Later Ancient Greek Philosophy. (4) (Same as Philosophy M103B.) Lecture, three hours. Requires: one course from M145A, Philosophy 1, 100A, 101B, or M102. Study of some major texts in Greek philosophy of Hellenistic and Roman periods. Readings will include works by Stoics, skeptics, philosophs of science, Neoplatonists, etc. P/NP or letter grading.

M146A. Plato—Earlier Dialogues. (4) (Same as Philosophy M101A.) Lecture, three hours; discussion, one hour. Philosophy 101A, Lecture. Study of selected topics in early and middle dialogues of Plato. P/NP or letter grading.

M146B. Plato—Later Dialogues. (4) (Same as Philosophy M101B.) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Study of selected topics in middle and later dialogues of Plato. P/NP or letter grading.

M147. Aristotle. (4) (Same as Philosophy M102L.) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Study of selected works of Aristotle. P/NP or letter grading.


149B. Bodies in Antiquity. (4) (Same as Disability Studies M122) Lecture, three hours. Investigation of individuals and groups that compose ancient Greek and Roman societies and relationship they have with larger social body, with particular focus on marginalized or minority groups such as women, noncitizens (resident aliens and provincials), slaves, children, elderly, and disabled. Examination of ways these groups contribute to or detract from our understanding of ancient society as whole. May be repeated for credit with topic change. P/NP or letter grading.

150A. Feminism in Greek Literature and Culture. (4) Lecture, three hours. Requires: course 10. Interdisciplinary study of female in Greek literature and culture. P/NP or letter grading.

150B. Female in Roman Literature and Culture. (4) Lecture, three hours. Requires: one course from 10, 20, 51A, 51B, Art History 20, or History 1A. Knowledge of Greek and Latin not required. General introduction to study of Aegean, Greek, and Roman architecture, sculpture, and painting for credit with department consent. P/NP or letter grading.


161. Women’s History in Ancient Mediterranean. (4) Lecture, three hours. Overview of approaches to problem of writing women’s history in the ancient Mediterranean world. Topics include law, medicine, work, religion (pagan, Christian, Jewish), and literature, with particular attention to themes of war, slavery, and sex trafficking. Exercises train students in critical use of primary documents and ancient sources, including inscriptions and other forms of material culture. P/NP or letter grading.

162. Reception of Ancient Myth. (4) Lecture, three hours. Traces reading and re-use of myth from antiquity to present, including global receptions in areas such as literature, philosophy, art, film, and politics. May be repeated once for credit with topic change. P/NP or letter grading.

163. Ovid and Consequences. (4) Lecture, three hours. Study of Ovid’s Metamorphoses and persistence and extent of Roman poet’s influence on subsequent literatures of antiquity and modernity. Modern versions vary depending on individual instructor and topic. May be repeated for credit with topic change. P/NP or letter grading.

165. Ancient Athletics. (4) Lecture, three hours. Preparation: one course from 10, 20, 51A, 51B, or Art History 20. History of Roman Empire’s seminal text before turning to poem’s classical, medieval, Renaissance, and modern imitators, from Apuleius to Shakespeare and Picasso and beyond. P/NP or letter grading.

166B. Roman Philology. (4) (Same as Art History M103C.) Lecture, three hours. Requires: course 20. Study of literature and culture of ancient Romans. P/NP or letter grading.
events by occult means as practiced in ancient world at large. Coverage of beliefs in supernatural forces, rites aimed at controlling these forces effectively, and character and beliefs of archetypical deities in various cultures of ancient world. Source material includes types of magical spells, literary texts about magic and magicians, and artifacts such as amulets and ritual implements. P/NP or letter grading.

168. Comparative Literature 101 (4) Lecture, three hours. Requisites: course 30, or GE Clusters 30A, 30B, and 30CW. Religious, mythical, and/or historical traditions of Greece and Rome compared with each other and with other traditions worldwide. P/NP or letter grading.

169. Sex in Ancient World. (4) Lecture, three hours. Requisite: course 10 or 20 or History 1A. Examination of sex and gender systems of Greek and Roman cultures in ancient Mediterranean world. What Greek and Roman sexual norms were, how they changed over time, and difference it makes. Readings include both modern theories about sex and history as foundation for course and broad range of ancient texts in translation. P/NP or letter grading.


175. Classics in Central and South America. (4) Lecture, three hours. Introduction to topics in classical reception through investigation of influence of Greco-Roman poetry on poetry of Central and South America during colonial period and beyond. From Homer to Vergil, poets of classical antiquity established robust tradition of epic with well-established literary tropes and nationalistic aims, cultural voice contributing to development of unified sense of national identity. Classical definition of epic as genre and sense of epic as vehicle for affirming and questioning national identity persisted with syncretism and reinterpretation throughout area by examining epic traditions of Central and South America, (mediated through European models that preceded and helped shape them) and their conscious engagement with classical tradition, through examples of both neo-Latin productions and vernacular poetry in Spanish and Portuguese. P/NP or letter grading.

180. Introduction to Classical Linguistics. (4) Lecture, three hours. Requisites: Greek 3 or Latin 3. Linguistic approach to Greek and Latin, including Indo-European background, etymology, pronunciation, alphabets, sociolinguistics (dialects, bilingualism), and applications to classical literature. P/NP or letter grading.


189. Advanced Honors Seminars. (1) Seminar. three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to 20 students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

190. Research Colloquia in Classics. (1) Seminar, one hour. Limited to juniors/seniors. Designed to bring together students and faculty in a seminar meeting and to encourage discussions of topics and research projects. Seminar in setting with one or more faculty members to discuss their own work or related work in discipline. Led by one supervising faculty member. May be repeated for credit. P/NP or letter grading.

191. Capstone Seminar: Classics. (5) Seminar, three hours. Requisites: courses 10, 20, at least four upper-division major courses. Limited to declared junior/senior departmental majors; minors may be admitted with consent of instructor. Topical research seminar on important themes, periods, genres of ancient Greek and Roman world. Intended to provide students with opportunity for serious engagement with research in discipline under close faculty supervision. Readings, discussions, oral presentations, and final research paper or project. May be repeated for credit. Letter grading.

193. Classical Club Seminars: Classics. (1) Seminar, one hour. Limited to undergraduate students. Group discussion of readings and topics selected from current issues in classics and related disciplines. May be repeated for credit. P/NP grading.

197. Individual Study in Classics. (2 or 4) Tutorial, two hours. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.


199. Directed Research in Classics. (2 to 4) Tutorial, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.


201B. Topics in Ancient History: Roman World. (2 or 4) Seminar, three hours. Introduction to basic methods and approaches to study of Roman history by intensive examination of selected topics, including readings of ancient texts and modern scholarship. S/U or letter grading.

201B. Latin Palaeography of Latin and Vernacular Manuscripts, 900 to 1500. (4) (Same as English M215, French M210, and History M218.) Lecture, three hours; discussion, two hours. Introduction to history of Latin and vernacular manuscript book from 900 to 1500 (1) train students to make informed judgments with regard to place and date of origin, (2) provide training in accurate reading and transcription of later medieval manuscripts, and (3) examine manuscript book as witness to changing society that produced it. Focus on relationship between Latin manuscripts and vernacular manuscripts with regard to their respective propagation and dissemination of written knowledge.

220A. Interfaces: Transmission of Roman Literature. (2 or 4) Seminar, three hours. Examination of transmission of Latin classical literature in late antiquity, Middle Ages, and Renaissance to understand processes by which Latin literature has been preserved. S/U (2-unit course) or letter (4-unit course) grading.

244. Textual Criticism: Studies in Preparation of Critical Edition of Greek and/or Latin Texts. (2 or 4) Seminar, three hours. Different steps required in preparation of critical edition of ancient text: locating manuscripts; collation; establishing stemma; selecting right reading on basis of knowledge of context, of language of author, and of sources; emendations; formulation of apparatus criticus and apparatus fortuam. S/U (2-unit course) or letter (4-unit course) grading.

250. Topics in Greek and Roman Culture and Literature. (2 or 4) Seminar, three hours. Interdisciplinary study on topics of ancient Greek and Roman culture and literature. May be repeated for credit with topic change. S/U or letter grading.

325A. Seminar: Classical Archaeology—Aegean Bronze Age. (2 or 4) Seminar, three hours. S/U or letter grading.

325B. Seminar: Classical Archaeology—Greco-Roman Architecture. (2 or 4) Seminar, three hours. Studies in style and iconography of various periods of Aegean, Greek, and Roman architecture. S/U (2-unit course) or letter (4-unit course) grading.

325C. Seminar: Classical Archaeology—Greco-Roman Painting. (2 or 4) Seminar, three hours. Studies in style and iconography of various periods of Aegean, Greek, and Roman painting. May be repeated for credit with consent of instructor. Letter grading.

325E. Archaeological Field Techniques. (12) Off-campus field archaeology, 36 hours. Preparation: at least one classical archaeology course. Training in techniques of archaeological research in field, including topographic and area survey, mapping and recording artifacts, excavation and data analysis. Conducted in Mediterranean area. Concurrently scheduled with course C151E, S/U or letter grading.


253. Topography and Monuments of Rome. (2 or 4) Lecture, two or four hours. Detailed studies in topography and monuments of ancient Rome, combining evidence of literature, inscriptions, and actual remains. S/U or letter grading.

260. Topics in Ancient Religion. (2 or 4) Seminar, three hours. S/U or letter grading.

260. Graduate Colloquium in Classical Literature. (2) Seminar, three hours. Survey of basic methods of and approaches to classical scholarship, including textual criticism, literary interpretation, and theory, hermeneutics, interdisciplinary studies, and computer applications to classics. Emphasis varies from year to year, depending on instructor(s). May be repeated for credit with topic change. S/U grading.

288. Literary Theory. (2 or 4) Discussion, three hours. Designed for graduate students. Introduction to chief texts in literary theory and criticism for readers of classical literature, with application to classical texts. S/U or letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprentice under the guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.
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495. Teaching Classics. (2) Tutorial, to be arranged. Preparation: consent of UCLA adviser and graduate dean, and host campus instructor, department chair, and graduate dean. Used to record enrollment of UCLA students in courses taken under cooperative arrangements with USC. S/U grading.

501. Cooperative Program. (2 to 8) Tutorial, to be arranged. S/U grading. May be applied toward MA or PhD course requirements.

506. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. S/U grading.


Greek

Lower-Division Courses

1. Elementary Greek. (5) Lecture, three hours; discussion, two hours. P/NP or letter grading.

2. Elementary Greek. (5) Lecture, three hours; discussion, two hours. Enforced requisite: course 1. P/NP or letter grading.

3. Elementary Greek. (5) Lecture, three hours; discussion, two hours. Enforced requisite: course 2. P/NP or letter grading.

4A-8B-9C. Elementary Modern Greek. (4-4-4) Lecture, three hours. Course 9A is enforced requisite to 8B, which is enforced requisite to 9C. Introductory modern Greek sequence, with emphasis on spoken modern Greek. P/NP or letter grading.

4G. Reading Scholarly Modern Greek. (4) Lecture, and two and one half hours. Designed for students who want to develop literacy competence in order to read modern Greek scholarly texts. No prior knowledge of modern Greek is required. Covers grammatical concepts and forms necessary to comprehend written academic Greek. Students gain familiarity with various academic genres in Greek (among others, articles, chapters, reviews, lecture transcripts). Emphasis on grammar and reading strategies that enable location, selection, and comprehension of texts central to research needs. Students are familiarized with major stylistic features of contemporary academic modern Greek, and consolidated their competence through reading, translating, and writing activities. Familiarization with basic aspects of modern Greek life and culture. P/NP or letter grading.

9A-9B-9C. Intermediate Modern Greek. (4-4-4) Lecture, three hours. Course 9A is enforced requisite to 9B, which is enforced requisite to 9C. Intermediate-level modern Greek program in study from communicative and task-based approach. Continued development of student understanding and use of Greek syntax and morphology through oral and written activities, reading, and listening. Students master basic communication skills, communicate in everyday real-life situations, comprehend simple passages, announcements, and advertisements, master basic rules of modern Greek grammar and syntax, read fluently, and write accurately. P/NP or letter grading.

15. Elementary Modern Greek. (12) Lecture, 18 to 19 hours. Eight-week intensive introduction to principles of speaking, reading, and writing modern (demotic) Greek. Offered in summer only. P/NP or letter grading.

16. Intensive First-Year Greek. (12) Lecture, 19 hours. Eight-week intensive introduction to Greek language equivalent to courses 1, 2, and 3. Offered in summer only. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

20. Intermediate Greek. (4) Lecture, three hours; discussion, one hour (when scheduled). Requisite: course 3 or 16. Formal review of Greek grammar and syntax and development of skills in reading original texts of Greek prose. Readings selected to introduce literature and culture of ancient Greece. P/NP or letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to toto-semester lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research on scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (including this course), individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

100. Readings in Greek Prose and Poetry. (4) Lecture, three hours. Requisite: course 20. Introduction to developing skills of reading longer, continuous passages of original Greek prose and/or poetry texts, with attention to literary and cultural background. Course is normally requisite to other courses in Greek 100 series. May be repeated for credit with change of assigned instructor and with consent of instructor. P/NP or letter grading.


102. Lyric Poets. (4) Lecture, three hours. Requisite: course 100. Selections from Archilochus to Baccylides, P/NP or letter grading.

103. Aeschylus. (4) Lecture, three hours. Requisite: course 100. P/NP or letter grading.

104. Sophocles. (4) Lecture, three hours. Requisite: course 100. P/NP or letter grading.


107. Hesiod. (4) Lecture, three hours. Requisite: course 100. Reading of Theogony and excerpts from Works and Days, with emphasis on Hesiod’s place in Greek literature and his role in transmission of Greek mythology. P/NP or letter grading.


111. Herodotus. (4) Lecture, three hours. Requisite: course 100. P/NP or letter grading.

112. Thucydides. (4) Lecture, three hours. Requisite: course 100. P/NP or letter grading.


115. Xenophon. (4) Lecture, three hours. Requisite: course 100. Reading of one major work of Xenophon—Memorabilia, Cyropaedia, Anabasis, Hellenica, or, if appropriate, —in Greek. P/NP or letter grading.


120. Plato: Republic. (4) Lecture, three hours. Requisite: course 100. P/NP or letter grading.


131. Readings in Later Greek. (4) Lecture, three hours. Requisite: course 100. Topics vary each year to year and include Longinus, On Sublime; Marcus Aurelius; Arrian; Second Sophistic; Plutarch; later epic; epi- gram; epistolology; Greece; P/NP or letter grading.


133. Readings in Byzantine Literature. (4) Lecture, three hours. Requisite: course 100. Topics vary each year to year and include Procopius, Agathias, Michael Psellus, Alexiad of Anna Comnena, and Digenis Akritas. P/NP or letter grading.

140. Topics in Greek Language and Culture. (4) Seminar, three hours. Requisite: course 99C. Covers topics in modern Greek language, culture, and history. Assigned materials are predominantly in modern Greek. Topics and geographical focus are diverse, ranging from literature and cinema to culture and history of Greek America. May be repeated for credit with topic change. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. Letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. Letter grading.

189H. Directed Research in Greek. (2 to 4) Seminar, three hours. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

199. Directed Research in Greek. (2 to 4) Seminar, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

200A-200B-200C. History of Greek Literature. (4-4-4) Lecture, three hours. Lectures on history of Greek literature, supplemented by reading of Greek texts in original language. Examinations to be taken independently for credit. S/U or letter grading.

201A-201B. Homer: Iliad (2 or 4 each) Lecture, three hours. Course 201A is requisite to 201B. S/U (2-unit course) or letter (4-unit course) grading.

201A-201B. Homer: Iliad (2 or 4 each) Lecture, three hours. Course 201A is requisite to 201B. S/U (2-unit course) or letter (4-unit course) grading.

201A-201B. Homer: Iliad (2 or 4 each) Lecture, three hours. Course 201A is requisite to 201B. S/U (2-unit course) or letter (4-unit course) grading.
241. Greek Epigraphy. (2 or 4) Seminar, three hours. Survey of Greek historical inscriptions, chiefly Attic. S/U (2-unit course) or letter (4-unit course) grading.


243. Mycenaean Greek. (2 or 4) Seminar, three hours. Script, language, and grammar of Linear B inscriptions; their relevance to ancient Greek linguistic and cultural history. S/U or letter grading.

244. Greek Papyrology. (2 or 4) Seminar, three hours. Preparation: reading knowledge of Greek. Introduction to Greek papyri, some of both historical documents and as carriers of literature. S/U (2-unit course) or letter (4-unit course) grading.

245. Greek Palaeography. (2 or 4) Seminar, three hours. Studies in development of book hand in Greek manuscripts earlier than invention of printing. S/U (2-unit course) or letter (4-unit course) grading.

Topical Studies of Ancient Greece. (2 or 4) Lecture, three hours. Advanced study of some aspect of ancient Greek language, literature, and/or culture. May be repeated for credit with topic change. S/U (2-unit course) or letter (4-unit course) grading.

Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. S/U grading.

Study for PhD Dissertation. (2 to 8) Tutorial, to be arranged. S/U grading.

Latin

Lower-Division Courses

1. Elementary Latin. (5) Lecture, three hours; discussion, two hours. P/NP or letter grading.

10. Elementary Latin for Graduate Students. (No grading.)


15. Early Greek Orators. (2 or 4) Seminar, three hours. Studies in works of Antiphon, Andocides, and Lysias. S/U (2-unit course) or letter (4-unit course) grading.

16. Intensive First-Year Latin. (12) Lecture, three hours. Concurrently scheduled with course 1, 2, and 3. Offered in summer and winter quarters. P/NP or letter grading.


21. Pre-Socratic Philosophers. (2 or 4) Seminar, three hours. S/U (2-unit course) or letter (4-unit course) grading.

22A-222B. Plato. (2 or 4 each) Lecture, three hours. Course 222A is equivalent to 222B. S/U (2-unit course) or letter (4-unit course) grading.

24. Post-Aristotelian Philosophy. (2 or 4) Seminar, three hours. S/U (2-unit course) or letter (4-unit course) grading.

26. Imperial Greek Literature. (2 or 4) Seminar, three hours. Study of Greek literature of Roman Empire with attention to various authors, genres, and themes. S/U or letter grading.


29. Latin

240A-240B. History of Greek Language. (2 or 4 each) Lecture, four hours; discussion, one hour (when scheduled). Linguistic history of classical Greek. 240A. Requisite: course 240A. Postclassical, medieval, and modern Greek.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

100. Intermediate Latin: Introduction to Reading Latin (4) Lecture, three hours. Enforced requisite: course 20 (may be taken concurrently). Introduction to developing skills of reading longer, continuous passages of original Latin prose and/or poetry texts, with attention to literary and cultural background. Course is requisite to advanced reading courses. May be repeated for credit twice with change of assigned readings and with consent of instructor. P/NP or letter grading.


103. Lucretius. (4) Lecture, three hours. Requisite: course 100. P/NP or letter grading.

104. Ovid. (4) Lecture, three hours. Requisite: course 100. P/NP or letter grading.

105A. Beginning Vergil: Selections from Aeneid I–VI. (4) Lecture, three hours. Requisite: course 100. Reading of one or more books from first half of Aeneid, especially designed for students with only limited experience in reading Latin poetry. May be repeated for credit with change in readings and consent of instructor. P/NP or letter grading.

105B. Advanced Vergil. (4) Lecture, three hours. Requisite: course 105A. Reading and discussion of Vergil’s Eclogues, Georgics, and/or second half of Aeneid. May be repeated for credit with change in readings and consent of instructor. P/NP or letter grading.


109. Roman Satire. (4) Lecture, three hours. Requisite: course 100. Readings from authors(s) of Roman satire, including Horace, Persius, and Juvenal, or related satric texts. May be repeated for credit with change in readings and consent of instructor. P/NP or letter grading.


111. Livy. (4) Lecture, three hours. Requisite: course 100. P/NP or letter grading.

112. Tacitus. (4) Lecture, three hours. Requisite: course 100. P/NP or letter grading.


115. Caesar. (4) Lecture, three hours. Requisite: course 100. Reading and discussion of Petronius’ Satyricon or Apuleius’ Metamorphoses and
development of genre of prose novel in antiquity. May be repeated for credit with change in author and text. P/NP or letter grading.


118. Seneca. (4) Lecture, three hours. Requisite: course 100. P/NP or letter grading.

119A. Readings in Roman Prose. (4) Lecture, three hours. Requisite: course 100. Readings of selected Roman prose authors. Topics may vary from year to year and may be organized in terms of chronology (Republican or imperial), epic, lyric, elegy, and/or lyric theme. May be repeated for credit with topic change. P/NP or letter grading.

119B. Readings in Roman Poetry. (4) Lecture, three hours. Requisite: course 100. Readings of selected Roman poetry author(s). Topics may vary from year to year and may be organized in terms of chronology (Republican or imperial), epic, lyric, elegy, and/or lyric theme. May be repeated for credit with topic change. P/NP or letter grading.


121. Patristic Texts. (4) Lecture, three hours. Requisite: course 100. Study of Greek and Latin patristic texts (especially works of Ambrose, Augustine, and/or Jerome), with emphasis on specific features of patristic, as opposed to classical, Latin. P/NP or letter grading.


189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate Latin course. Exploration of topics in greater depth through supplemental readings, papers, or other activities. Taught by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189C. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division Latin course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for credit. P/NP or letter grading.

197. Individual Studies in Latin. (2 to 4) Tutorial, two hours. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and task will reflect mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

199. Directed Research in Latin. (2 to 4) Tutorial, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses


201. Roman Epic Tradition. (2 or 4) Seminar, three hours. Close study of one epic poet other than Vergil (e.g., Ennius, Lucan, Valerius Flaccus, Statius, Silius Italicus), with attention of epic. May be repeated for credit with topic change. S/U (2-unit course) or letter (4-unit course) grading.

202. Seminar: Catullus. (2 or 4) Seminar, three hours. Detailed consideration of entire Catullan corpus. S/U (2-unit course) or letter (4-unit course) grading.

203A. Elegiac Poetry. (2 or 4) Lecture, three hours. S/U (2-unit course) or letter (4-unit course) grading.

203B. Propertius. (2 or 4) Lecture, three hours. Course 203A is not requisite to 203B. S/U (2-unit course) or letter (4-unit course) grading.

204A-204B. Vergil's Aeneid. (2 each) Lecture, three hours. Course 204A is requisite to 204B. S/U (2-unit course) or letter (4-unit course) grading.

205A. Seminar: Vergil's Bucolics. (2 or 4) Seminar, three hours. S/U (2-unit course) or letter (4-unit course) grading.

205B. Seminar: Vergil's Georgics. (2 or 4) Seminar, three hours. Course 205A is not requisite to 205B. Close reading of Vergil's text; careful evaluation of influential criticism on poem, much of it recent; examination of works in literary tradition of rural poetry. S/U (2-unit course) or letter (4-unit course) grading.

206. Horace. (2 or 4) Lecture, three hours. S/U (2-unit course) or letter (4-unit course) grading.

207. Roman Comedy. (2 or 4) Seminar, three hours. Survey of history of Roman comedy; S/U (2-unit course) or letter (4-unit course) grading.

208. Ovid. (2 or 4) Seminar, three hours. S/U (2-unit course) or letter (4-unit course) grading.

209. Seminar: Roman Satire. (2 or 4) Seminar, three hours. Detailed study of one individual satirist, with attention to his position in development of satirical genre in Roman literature. Choice of author varies from year to year. Close study of text, of characteristics of writer as social critic and artist, and of contemporary literary and social environment. S/U (2-unit course) or letter (4-unit course) grading.


211A-211B-211C. Seminars: Roman Historians. (2 or 4 each) Seminar, three hours. Study of considerable portions of writings of following historians. Each course may be taken independently for credit. S/U (2-unit course) or letter (4-unit course) grading. 211A. Sallust; 211B. Livy; 211C. Tacitus.

214. Ancient Biography: Roman Lives. (2 or 4) Seminar, three hours. Study of biography in ancient Rome. Literary survey or focused readings on lives of Corneille Nepos, Suetonius, Plutarch, and Tacitus from 1st to 4th century CE. S/U (2-unit course) or letter (4-unit course) grading.

215. Seminar: Roman Novel. (2 or 4) Seminar, three hours. Works such as Petronius' Satyricon and Apuleius' Metamorphoses; study of literary problems. May be repeated for credit with topic change. S/U (2-unit course) or letter (4-unit course) grading.

216. Roman Rhetoric. (2 or 4) Seminar, three hours. Close study of one rhetorical text (e.g., Rhetorica ad Herennium, Cicero's De Oratore, Seneca's Controversiae or Suasoriae, Quintilian's Institutio), with attention to its place in rhetorical tradition. May be repeated for credit with topic change. S/U (2-unit course) or letter (4-unit course) grading.

220. Cicero's Orations. (2 or 4) Seminar, three hours. S/U (2-unit course) or letter (4-unit course) grading.

221A. Cicero's Philosophical Works. (2 or 4) Lecture, three hours. S/U (2-unit course) or letter (4-unit course) grading.

221B. Cicero: De Naturae Deorum. (2 or 4) Lecture, three hours. Course 221A is not requisite to 221B. S/U (2-unit course) or letter (4-unit course) grading.

222. Seminar: Roman Stoicism. (2 or 4) Seminar, three hours. S/U (2-unit course) or letter (4-unit course) grading.

223. Lucan. (2 or 4) Seminar, three hours. S/U (2-unit course) or letter (4-unit course) grading.
Overview
Cluster courses are an option for satisfying both general education and Writing II requirements. Clusters are yearlong, collaboratively taught, interdisciplinary courses that focus on a topic of timely importance, such as the global environment or interracial narratives. The courses are taught by some of the most distinguished UCLA faculty members and seasoned graduate students. During fall and winter quarters, students attend lecture courses and small discussion sections and/or laboratories. In spring quarter, the same students enroll in one of a number of seminar seminars dealing with topics related to the cluster theme.

Freshman clusters are designed to strengthen the writing, quantitative reasoning, critical thinking, and information literacy skills that students need to excel at UCLA. At the conclusion of the entire yearlong cluster, students complete 40 to 50 percent of their general education course requirements (if they maintain a D- or better each quarter) and fulfill the Writing II requirement (if they earn a C or better in spring quarter). Cluster students are eligible for three terms of honors credit, with the spring quarter seminar granting Honors Collegium credit.

For the current cluster course offerings and general education credit, refer to the Cluster Program website.

Clusters
Lower-Division Courses
M1A-M1B-M1CW. Food: Lens for Environment and Sustainability. (6–6–6) Course M1A is requisite to M1B, which is enforced requisite to M1CW. Limited to first-year freshmen. M1A-M1B. Lecture, three hours; discussion, two hours. Food as lens for local and global environmental and sustainability issues. Integration of environmental, social, economic, and technological solutions for fair, sustainable, and healthy food production, food security, and access. Focus on human impacts on Earth’s biological and physical systems, including how food production and consumption contributes to, and is impacted by, global problems, including climate change, pollution, and over-population. Laboratory exercises include lab and in discussions. P/NP or letter grading. M1CW. Special Topics. Seminar, three hours. Enforced requisite: course M1A. Examination of specialized environmental and sustainability topics as they relate to food, including air, water, biodiversity, climate change, food access, food security, and health. Satisfies Writing II requirement. Letter grading.

10A-10B-10CW-10WX. Data, Justice, and Society. (6–6–6) Course 10A is requisite to 10B, which is requisite to 10CW or 10WX. Limited to first-year freshmen. 10A. Lecture, three hours; discussion, two hours. Data-based computation (i.e., algorithms, artificial intelligence, predictive modeling) increasingly play a dominant role in shaping everyday experiences of culture and society. Data and data analytics define everything from social norms and public policy to juridical status and market logistics. Introduction to politics, ethics, applications, history, critiques, and social impact of data. Introduction to how data intersects with philosophical inquiries about justice, (in)equality, power, and freedom. Students obtain deeper historical and critical view of data in society, while gaining understanding of different framings of analysis. P/NP or letter grading. 10B. Lecture, three hours; discussion, two hours. Data-based computation (i.e., algorithms, artificial intelligence, predictive modeling) increasingly play a dominant role in shaping everyday experiences of culture and society. Data and data analytics define everything from social relations and public policy to juridical status and market logistics. Issues thinking about ethics and data in a data-driven society but focus on concrete case studies. Students gain critical understanding of technology sector, and also learn of community-engaged models of deploying data skills for social justice. P/NP or letter grading. 10CW. Special Topics. Seminar, three hours. In-depth examination of the politics, ethics, applications, history, critiques, and social impact of data. Further review, analysis, and discussion of how data technologies either impede or work toward social justice. Study continues to provide guidance on honing writing skills in order to produce excellent college essays. Satisfies Writing II requirement. Letter grading.

20A-20B-20CW. Race and Indigeneity in U.S. (6–6–6) Course 20A is enforced requisite to 20B, which is enforced requisite to 20CW. Limited to first-year freshmen. 20A. Lecture, three hours; discussion, two hours. Examination of nature and meaning of race in American society through study of history, literature, and law. Consideration, among other topics, of constructions of race and cultural categorization among two or more groups and exploration of ways in which race has shaped understanding of American citizenship. P/NP or letter grading. 20B. Special Topics. Lecture, seminar, three hours. Enforced requisite: course 20A. Consideration of how experience, debates, and issues of race are represented and understood in historical, legal, social, and political contexts. Satisfies Writing II requirement. Letter grading.

21A-21B-21CW. History of Modern Thought. (6–6–6) Course 21A is enforced requisite to 21B, which is enforced requisite to 21CW. Limited to first-year freshmen. Letter grading. 21A-21B. Lecture, three hours; discussion, two hours. Topics and debates that have shaped and continue to define modern thought and society. Consideration of the Enlightenment, the French Revolution, and the Industrial Revolution. Emphasis on critical thinking, reading, and writing. P/NP or letter grading. 21CW. Special Topics. Seminar, three hours. Enforced requisite: course 21B. Examination of cross-section of classical and modern social theories and debates that shape them. Satisfies Writing II requirement.

22A-22B-22CW. Toward World Economy: Perils and Promise of Globalization. (6–6–6) Course 22A is enforced requisite to 22B, which is enforced requisite to 22CW. Limited to first-year freshmen. Letter grading. 22A-22B. Lecture, three hours; discussion, two hours. Exploration of impacts of globalization as well as its consequences. Critical examination of globalization theories, international institutions of trade, finance, governance, and overall impact of globalization on human society. 22CW. Special Topics, Seminar, three hours. Enforced requisite: course 22B, and English Composition 3 or 3H or English as a Second Language 36. Topics may include global governance, development, and health. Satisfies Writing II requirement.

M23A-23B-23CW. Inside Performing Arts: Interdisciplinary Exploration of Performance in Society and Culture. (5–5–5) Course 23A is enforced requisite to 23B, which is enforced requisite to 23CW. Limited to first-year freshmen. Letter grading. 23A-23B. Lecture, four hours; discussion, two hours. Introduction to historical development and evolution of performing arts, aesthetic theories and practices, social, political, and cultural contexts within which performance has evolved. 23CW. Special Topics. Seminar, three hours. Enforced requisite: course 23B, and English Composition 3 or 3H or English as a Second Language 36. Special Topics include origins and ideas of performance, art and performance, and music as cultural expression. Satisfies Writing II requirement.

M24A-M24B-M24CW. Work, Labor, and Social Justice. (6–6–6) Course M24A is enforced requisite to M24B, which is enforced requisite to M24CW. Limited to first-year freshmen. Letter grading. M24A-M24B. Lecture, three hours; discussion, two hours. Exploration of ways in which labor has been transformed over last century, impact of this transformation on working people, and role of labor movement as force for social change. M24CW. Special Topics. Seminar, three hours. Enforced requisite: course M24B. Topics include labor law/history, gender, race, and workplace. Satisfies Writing II requirement.


M26A-M26B-M26CW. Poverty and Health in Latin America. (6–6–6) Course 26A is enforced requisite to 26B, which is enforced requisite to 26CW. Limited to first-year freshmen. Letter grading. 26A. Lecture, three hours; discussion, two hours. Introduction to social determinants of health, with emphasis on historical, socioeconomic public health, medical, political, and artistic context of poverty in modern Latin America and on different local, national, and regional responses to health inequities. Major trends and debates that have shaped and continue to define issues related to poverty and health in region. 26B. Lecture, three hours; discussion, two hours. Enforced requisite to course 26A. Responses to health inequities and possible solutions to promote improved health outcomes and to social determinants of health illustrated through examples of current programs and policies. Major areas for addressing health inequity include governance, community action, social justice and human rights movements, social policy and public health programs, and global priorities. Introduction to tools to promote health equity and social justice. Consideration of health outcomes and health systems governance. 26CW. Special Topics. Seminar, three hours. Enforced requisite: course 26B. Students meet weekly in small group seminars based on topics related to course theme to allow them to study, discuss, and then generate policy solutions to create more equitable healthcare in Latin America. Focus on one particular area of Latin America or one local Latin American community to reflect field study sites to eventually be offered and serve as preparation for semester field study component. Satisfies Writing II requirement.

M27A-M27B-M27CW. Global Islam. (6–6–6) (formerly numbered 27A-27B-27CW) (Same as Islamic Studies M27A-M27B-M27CW) Course M27A is enforced requisite to M27B, which is enforced requisite to M27CW. Introduction to Islam, immensely diverse
Board of Education (1954) to resignation of Nixon. Topics include civil rights, Great Society, anti-Vietnam war movement, political and artistic countercultures, and changes in technology, law, and media. P/NP or letter grading. 60CW, Special Topics. Seminar, three hours. Enforced requisite: course 60B. In-depth examination of political and cultural issues affecting U.S. society from 1964 to 1974. Satisfies Writing II requirement. Letter grading.

69A-69B-69CW. Los Angeles: The Cluster. (6–6–6) Course 69A is enforced requisite to 69B, which is enforced requisite to 69CW. Limited to first-year freshmen. Letter grading.

70A-70B-70CW. Evolution of Cosmos and Life. (6–6–6) Course 70A is enforced requisite to 70B, which is enforced requisite to 70CW. Limited to first-year freshmen. Letter grading.

71A-71B-71CW. Biotechnology and Society. (6–6–6) (Same as Sociology 71A-M71B-71CW) Course M71A is enforced requisite to M71B, which is enforced requisite to M71CW. Limited to first-year freshmen. Letter grading.

72A-M72B-M72CW. Sex from Biology to Gendered Society. (6–6–6) (Same as Communication 72A-M72B-M72CW; Society and Genetics M72A-M72B-M72CW, and Sociology M72A-M72B-M72CW) Course M72A is enforced requisite to M72B, which is enforced requisite to M72CW. Limited to first-year freshmen. Letter grading.

73A-73B-73CW. Brain, Bodymind, and Society: All in Your Head? (6–6–4) Course 73A is enforced requisite to 73B, which is enforced requisite to 73CW. Limited to first-year freshmen. Letter grading.

80A-80BX-80CW. Frontiers in Human Aging. (6–6–6) Course 80A is enforced requisite to 80B, which is enforced requisite to 80CW. Limited to first-year freshmen. 80A-80BX. (Formerly numbered 80B.) Lecture, three hours; discussion, two hours. Examination of aging process from vantage points of multiple disciplines including biology, psychology, sociology, and public policy. Study of biomedical and biological aging and psychological, social, and ethical implications of phenomena. P/NP or letter grading.


97A. Cluster Colloquium: Variable Topics. (1) Seminar, one hour. Variable topics course designed for students who have completed one GE cluster. Study, through small-group discussion and projects, of selected topics related to one cluster theme or topic. Consult Schedule of Classes for topics and instructors. May be repeated once for credit. P/NP grading.

Upper-Division Courses

180A. Cultural Heritage and Representation of Identity: Debates and Writing. (5) Lecture, three hours; discussion, two hours. Course 180A is requisite to 180B. Designed for transfer students. How tangible and intangible materials of human culture are used by their creators to fashion and refashion their identities over time and in different spaces. Introduction to multidisciplinary perspectives on human cultures and associated objects they create, different issues attendant on excavation, preservation, and presentation of these materials to different publics, and what all of this means to those whose heritage is being studied and/or exhibited through use of many rich cultural resources on and off campus. Examination of topics related to cultural heritage, with strong focus on debate and writing. P/NP or letter grading.

180B. Cultural Heritage and Representation of Identity: Special Topics. (5) Seminar, three hours. Required course 180A. How tangible and intangible materials of human culture are used by their creators to fashion and refashion their identities over time and in different spaces. Introduction to multidisciplinary perspectives on human cultures and associated objects they create, different issues attendant on excavation, preservation, and presentation of these materials to different publics, and what all of this means to those whose heritage is being studied and/or exhibited through use of many rich cultural resources on and off campus. Letter grading.

Graduate Course

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel assignment. Employment of a graduate student as an assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.
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Professors Emeriti
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Associate Professors
Jungseock Joo, PhD
PJ Lamberson, PhD
Francis F. Steen, PhD
Anne S. Warlaumont, PhD
Assistant Professors
Tao Gao, PhD
Georgia C. Kernell, PhD
Senior Lecturers
Marde S. Gregory, MA, Emerita
Steven M. Peterson, PhD
Paul Von Blum, JD, Emeritus
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Gabriel B. Jones, PhD
James A. Jusko, JD
Raffi L. Kassabian, JD
Karyl K. Kicenski, PhD
Nazo L. Koulloukian, JD
James S. Newton, BA
Michael W. Suman, PhD
Adjunct Assistant Professors
Abigail H. Goldman, MS
Barry A. Sanders, JD
Overview
The Department of Communication is an interdisciplinary group of scholars interested in communication at many levels of analysis, including digital and mass media, political communication, and interpersonal social interaction.

Undergraduate Major
Communication BA
The major in Communication is an interdisciplinary curriculum leading to a Bachelor of Arts (BA) degree. It seeks to provide students with comprehensive knowledge of the nature of human communication at multiple levels of analysis. The major coursework includes content from the natural and social sciences, as well as the humanities. Four areas of focus are offered: communication technology and digital systems, interpersonal communication, mass communication and media institutions, and political and legal communication.

Learning Outcomes
The Communication major has the following learning outcomes:
- Demonstrated mastery of substantive areas of the field, including mass communication and media institutions, interpersonal communication, communication technology and digital systems, and political and legal communication
- Placement of particular communication events or examples in the context of broader patterns of human activity
- Critical evaluation of arguments based on evidence
- Design and implementation of original research projects
- Completion, using acquired knowledge and skills, of a project that demonstrates core competencies in the field
- Active participation in learning-in-practice opportunities
- Evaluation and critique of oral presentations
- Demonstrated mastery of conceptualization, formulation, and oral presentation of the student’s own ideas

Entry to the Major
Admission
Enrollment in the major is limited. Admission to the major is by application to the committee in charge. Applications are available online or at the department website to regularly enrolled UCLA students during spring quarter.

Transfer Students
Transfer applicants to the Communication major with 90 or more units must complete at least four of the following seven lower-division required courses: Communication 10 or one interpersonal communication and one mass communication course, one public address course, one linguistics course, one statistics course, and three courses from psychology, American government, sociology, and microeconomics or political economy. Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements
Preparation for the Major
Students are encouraged but not required to complete as many lower-division preparation for the major courses as possible before admission to the program.

Required: Communication 1, 10, one course selected from Anthropology 4, Linguistics 1, or Philosophy 23, one statistics course from Economics 41 or Statistics 10. Three additional courses must be selected from Political Science 40, Psychology 10, Sociology 1, and Economics 1 or 5 or Political Science 30.

The Major
Students must complete 10 or 11 upper-division courses. The practicum requirement can be satisfied by a course that also satisfies a core or an additional area elective course requirement.

Required Core Courses: Communication 100, 150.

Required Area Courses: A total of eight courses from the following four areas, including at least one core course in each area:
- Communication Technology and Digital Systems—Core courses: Communication 129, 131, 151, 154, 155, 156, 158, 159; elective courses: Communication 157, 188C, 191C.
- Political and Legal Communication—Core courses: Communication 101, 160, 162, 168, 170, 174; elective courses: Communication 102, 163, 164, 171, 173, M176, 178, 188D, 191D, Political Science M141A, 141B (or Sociology 133), 141C, 141E.

Required Practicum Course: One course from Communication 101, 102, 103A, 103B, 104, 109, 111, 116, M117, 155, 160, M176, 188E, or 191E.

Honors Program
The departmental honors program provides exceptional students an opportunity for advanced research and study, under the guidance of a faculty member, that leads to the completion of an honors thesis. To qualify for graduation with departmental honors, students must (1) complete all requirements for the major; (2) have a cumulative grade-point average of 3.6 or better in upper-division coursework in the major and an overall GPA of 3.3 or better in all completed UC coursework; (3) complete Communication
Graduate Major

Communication MS, PhD

The program’s core areas of specialization include: communication and cognition, political communication, and computational communication. Students are trained in the core of communication scholarship by engaging in coursework and research that aligns with the broader discipline.

Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Communication

Lower-Division Courses

1. Principles of Oral Communication. (4) Lecture, four hours. Requisites: satisfaction of Entry-Level Writing requirement. Examination of foundations of communication and public speaking. Consideration of number of basic theories related to study of communication and development of skills to enable composition and delivery of speeches in accordance with specific rhetorical concepts. Improvement of ability to analyze, organize, and critically think about communicative messages while becoming better equipped to articulate ideas. P/NP or letter grading.

1A. Public Speaking for Nonnative Speakers. (4) Lecture, four hours. Designed for nonnative speakers of English to increase fluency and vocabulary while improving presentation skills, language usage, reasoning, style, and delivery. Conversation and pronunciation practice. Focus on skills and practice of public speaking, including selection of content, organization of ideas, language, and delivery. Practice in extemporaneous and manuscript speaking. Critical analysis of speeches in both contemporary and historical settings. Special emphasis on group discussions, evaluations, practice of both public and private speaking skills. Offered in summer only. P/NP or letter grading.

1B. Learning American English and Culture from Movies. (4) Lecture, four hours. Advancement of students’ fluency in conversational English while increasing their awareness of American popular culture. Primer on sex/gender and American English, and nuances of contemporary customs and values offered through guided immersion in popular cinema. Offered in summer only. P/NP or letter grading.

10. Introduction to Communication. (5) Lecture, four hours; discussion, one hour. Introduction to study of interpersonal and mass communication using interdisciplinary approach. Exploration of basic methods and theoretical perspectives that social scientists and others use to study interpersonal and mass communication, and basic concepts used to describe and explain that communication. Historical overview of each major mass media. Study of significant current topical issues related to means of communication that reach large numbers of people. Letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in the field. Selection of many paths of discovery at UCLA. P/NP grading.

M72A-M72B-M72CW. Sex from Biology to Gendered Society. (6–6–6) (Same as Clusters M72A-M72B-M72CW, Sociology M72A-M72B-M72CW, and Sociology M72A-M72B-M72CW) Course M72A is enforced requisite to M72B, which is enforced requisite to M72C. Limited to first-year freshmen. Letter grading. M72A-M72B-Lecture, three hours; discussion, two hours. Examination of many ways in which sex and sexual identity shape and are shaped by biological and social forces, approached from the perspectives of evolutionary theory, romantic love, cultural studies, and psychology.

M72C. Special Topics. Seminar, three hours. Enforced requisite: course M72B. Topics may include production of reproduction, sexuality, sexual identity, social construction of gender, and reproductive technologal. Special topics Writing II requirement.

88. Sophomore Seminars: Communication Studies. (4) Seminar, three hours. Limited to maximum of 20 lower-division students. Readings and discussions designed to introduce students to current research in discipline. Culminating project may be required. P/NP or letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors contract noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for individual contract require. Undergraduate Research Center. May be repeated. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

100. Communication Science. (4) Lecture, three hours. Requisite: course 10 or Linguistics 1 or Sociology 1 or Psychology 10. Examination of fundamental issues in communication sciences. Exploration of theoretical and methodological approaches that bridge major areas of current interdisciplinary communication research. P/NP or letter grading.

101. Freedom of Communication. (4) Lecture, four hours. Analysis of legal, political, and philosophical issues entitled in rights of free expression, access to audience, and access to information. Study of court decisions governing freedom of communication in U.S. P/NP or letter grading.


103A-103B. Forensics. (4–4) Lecture, three hours. Participation in on-campus and intercollegiate forensic activities, including exposure to fundamentals of competitive forensic events. Students practice public address, interpretation of literature, debate, oratory, and extemporaneous speaking and engage in independent research and analysis. P/NP or letter grading.

103A. Basic preparation; 103B. Advanced practice in speech.


105. Media Conspiracy Theories in U.S. and Middle East. (4) Lecture, three hours. Through mass and digital media, conspiracy theories are reshaping politics and society around the world. Although conspiracy theories are globally widespread, they find particularly fertile ground in Middle East and in U.S. Definition, identification, and analysis of conspiracy theories as they appear in media of Western democracies and Muslim majority societies. Interdisciplinary approach to study of conspiracy theories. Case studies, such as conspiracies about 9/11, taken from Middle Eastern media sources in English translation. Background knowledge of Middle East not required. P/NP or letter grading.

106. Reporting America. (4) Lecture, three hours. Introduction to main western European and Middle Eastern news media, with materials in English. Exploration of how U.S. is represented in Europe, Middle East, Iran, and Afghanistan, with focus on three comparative case studies of Britain, Spain, and Germany. In-depth coverage of American news as reflected in Europe and Middle East. P/NP or letter grading.

107. Terrorism in Journalism. (4) Lecture, three hours. How do media outlets in Middle East represent Isla- matic terrorism? How do they describe, analyze, and comment on suicide attacks? Focus on Arab, Afghan, and Iranian media discussions of this phenomenon to explore evolution of meaning of terrorism in Muslim societies. P/NP or letter grading.

108. Communication and Identity. (4) Lecture, three hours. Study of relationships among communication, culture, and identity, and examination of ways in which texts (broadly construed) constitute experience, difference, and subjectivity. Focus on function of language, representation and meaning in construction of self, social collectives, and world views. Consideration of how communication is performative endeavor for humans. Seeking to construct meanings are prepared to describe and explain theories that detail performance as communicative form, analyze ways language and discourse function as texts that work to produce significant personal and social identities, and describe specific principles, motivations, and theoretical categories within interdisciplinary study of culture that produce identity. Letter grading.

109. Entrepreneurial Communication. (4) Lecture, four hours. Study of communication from foundations in internal and external communication and development of data analysis, interpretation, and presentation skills. Consideration of existing as well as in development of, contemporary and innovative business. P/NP or letter grading.

110. Gender and Communication. (4) Lecture, four hours. Understanding gender is fundamental part of understanding who we are as human beings. Exploration of crucial role of gender in spheres of life involving
communication and role and origins of gender differences in communication. Contexts of communication include family, workplace, sexuality, and intimate relationships. Discussion of media influence conceptions of gender. P/NP or letter grading.

111. Conflict and Communication. (4) Lecture, three hours. Analysis of when and why conflict is prevalent in daily lives (including mass media) and how communication and conflict are related and consequence of conflict. Conflict is part of our evolutionary heritage. How well we handle various conflicts affects, to great degree, our success or failure wherever we interact with others, including intimate relations, school, and workplace. P/NP or letter grading.

112. Current Issues in Vocal Communication. (4) Seminar, three hours. Requisite: course 118 or 120 or 125. Examination of contemporary issues in evolution of communication research. Topics include design of communication systems, animal signaling, social communication, and speech production and perception. P/NP or letter grading.

M113. Nonverbal and Communication Body Language. (4) (Same as Phonology M137B.) Lecture, three hours. Examination of how various forms of nonverbal communication convey meaningful information to perceivers, with focus on both production and perception of various communication formats (e.g., expressions of face and body, gesture, and mimetics), with strong emphasis on body language. Readings from variety of related fields. P/NP or letter grading.

114. Understanding Relationships. (4) Lecture, four hours. Explanation of types of communication that occur in close relationships, especially romantic relationships. Topics include a variety of relationship topics, including intimacy, stages of intimate relationships, why we choose to get involved with some people as opposed to others, flirting, and self-disclosure. P/NP or letter grading.

115. Interpersonal Dynamics. (4) Lecture, three hours. Survey of recent scientific approaches to dyadic communication and relationships. Surveys selection of experimental, observational, and quantitative methods, and how they can be applied to key issues in dyadic communication and interpersonal relationships. Topics include recent technological techniques for measuring and influencing dyads, including role of peripheral devices of negotiation skills, including identifying one’s own (and others’) communication style, identifying and incorporating components of successful negotiation, and resolving conflict between parties. P/NP or letter grading.

116. Communication and Conflict in Couples and Families. (4) Lecture, three hours. Examination of (1) dysfunctional communication and conflict in couples and families and (2) relationship of these processes to individual and group psychological, marital discord, family disruption (e.g., separation and divorce). P/NP or letter grading.

M117. Negotiation. (4) (Same as Labor Studies M117.) Lecture, four hours. Art and science of negotiating skills, including identifying one’s own (and others’) communication style, identifying and incorporating components of successful negotiation, and resolving conflict between parties. Letter grading.

118. Language and Music. (4) Lecture, three hours. Cognitive science exploration of structure and evolution of language and music and their relationships to communication, cognition, and culture. P/NP or letter grading.

119. Voice and Its Perception. (4) Lecture, four hours. How we handle various conflicts affects, to great degree, our success or failure wherever we interact with others, including intimate relations, school, and workplace. P/NP or letter grading.

120. Group Communication. (4) Lecture, four hours. Examination of group communication from perspectives of evolutionary psychology, cognitivism, and psycholinguistics. Topics include evolution of cooperation, ingroup and outgroup dynamics, gossip, music improvisation, and conversational behavior. P/NP or letter grading.

121. Communication Development. (4) Lecture, three hours. Examination of method development of human interpersonal communication, including production and perception of communicative signals at different ages, methods for studying communication development, physiological and social mechanisms, cross-cultural similarities and differences in communication development, effects of media and technology, and disorders. Letter grading.


M123. Social Cognition. (4) (Formerly numbered 123.) (Same as Psychology M137M.) Lecture, three hours. Survey of various aspects of online computer games that they are applied to key issues in dyadic communication and interpersonal relationships. Topics include attention, interpretation, evaluation, judgment, attribution, and memory processes. Consideration of both controlled and automatic processes. Discussion of roles of motives, goals, and affective variables. P/NP or letter grading.

M124R. Evolution of Language. (4) Lecture, four hours. Evolution of language and evolution of the species. Every aspect of life, from the individual to the group, involves communication. Communication is a vital component of democracy. How do these different and often conflicting functions determine content of mass media? Examination of psychological dynamics of advertising, nature of entertainment and mass culture, practice of propaganda, and changing patterns in ownership. Assessment of impact of mass media on individuals and social institutions. Letter grading.

125. Media Portrayals of Gays and Lesbians. (4) Lecture, three hours. How are gays and lesbians and gay myths portrayed in media? Examination of how various forms of nonverbal communication convey meaningful information to perceivers, with focus on both production and perception of various communication formats (e.g., expression of face and body, gesture, and mimetics), with strong emphasis on body language. Readings from variety of related fields. P/NP or letter grading.

126. Evolution of Interpersonal Communication. (4) Lecture, four hours. Examination of current issues in interpersonal communication research. Topics include evolution of various aspects of online computer games that they are applied to key issues in dyadic communication and interpersonal relationships. Topics include coevolution of signaler and receiver adaptations, nonverbal communication, courtship behavior, miscommunication between man and computer, and deception. Letter grading.

M127. Animal Communication. (4) (Same as Anthropology M128G.) Lecture, three hours. Designed for juniors/seniors. Practices of communication and social interaction in major of institutional sites in contemporary society. Setting varies but may include emergency response, police and courts, medicine, news interviews, and political oratory. P/NP or letter grading.

128. Play and Entertainment. (4) Lecture, three hours. Entertainment is significant component of both interpersonal and mass communication. Examination of evolutionary history, cognitive mechanisms, and social dimensions of play within different contexts. How do they operate? What is their possible pedagogical effects. Letter grading.

129. Gaming Mind. (4) Lecture, three hours. Exploration of various aspects of online computer games that are becoming increasingly popular and technically sophisticated, with focus on what people learn from games, how they learn it, and whether learning is potentially useful. Letter grading.

130. Science of Language. (4) Lecture, three hours. Introduction to sociolinguistics, psycholinguistics, and connections to applied issues in communication. Survey of various scientific methods, and how they are applied to key issues in language and communication. Topics include historical, systematic, and functional analysis of words, complexes of sentences, and study of how these are processed (and produced) during communication. Includes some hands-on exercises, including learning some scientific tools that can be used both in future research and in field. Letter grading.

131. Computer Models of Communicators. (4) Lecture, four hours. Design and implementation of computerized methods to model communication processes. Survey of various computer methods, and how to apply these in hands-on exercises. Exercises help set up simple computer simulations of various communication processes. Covers computer models for individual communicators, dyads, groups, and collective (mass) systems. Letter grading.

132. Multicultural Television. (4) Lecture, four hours. Historical analysis of television programming and scholarly research of new developments in television. Application of research findings by students to real-world contexts in course discussions, papers, and class projects. Letter grading.

133. Decoding Media Strategies. (4) Lecture, three hours; discussion, one hour. Today’s mass media are thriving business, central part of cultural identity, and vital component of democracy. How do these different and often conflicting functions determine content of mass media? Examination of psychological dynamics of advertising, nature of entertainment and mass culture, practice of propaganda, and changing patterns in ownership. Assessment of impact of mass media on individuals and social institutions. Letter grading.

134. Media Portrayals of Gays and Lesbians. (4) Lecture, three hours. How are gays and lesbians and gay myths portrayed in media? Examination of how various forms of nonverbal communication convey meaningful information to perceivers, with focus on both production and perception of various communication formats (e.g., expression of face and body, gesture, and mimetics), with strong emphasis on body language. Readings from variety of related fields. P/NP or letter grading.

140. Theory of Persuasive Communication. (4) Lecture, four hours. Dynamics of communication designed to influence human conduct; analysis of structure of persuasive discourse; integration of theoretical and empirical findings of relevant disciplines of humanities and social sciences. Letter grading.

141. Films of Persuasion: Social and Political Advocacy in Mass Society. (4) Lecture, three hours; discussion, one hour. Films often provide commentary on social and political issues. Students will learn to communicate to large audiences about history, society, and politics. Critical evaluation of these works to understand power and limitations of films as social persuasion. Letter grading.

143. Rhetoric of Popular Culture. (4) Lecture, three hours. Rhetorical approach to study of U.S. popular culture. Examination, both at theoretical level and in specific case study, of how popular cultural texts perform rhetorically to influence political and social struggles shaping everyday life. How do popular artifacts or communicative texts constitute source for (re)negotiation of cultural meanings as well as greater understanding of ways language functions as vehicle for human action. Letter grading.

M144A-M144B. Conversational Structures I, II. (4–4) (Same as Sociology CM124A-M124B.) Lecture, three hours; discussion, one hour. How do communicative acts convey meaning? In what ways do social and cultural practices shape how we communicate? Letter grading.

M144A. Introduction to various disciplines employed in organization of conversational interaction, such as turn-taking, action sequencing, and repair. M144B. Requisite: course M144A. Consideration of some more expanded sequence structures, story structures, topical sequences, and overall structural organization of single conversations.

145. Situational Comedy and American Culture. (4) Lecture, three hours. Historical analysis of sitcom genre from its beginning in late 1940s to present. Investigation of how sitcoms have influenced American life and culture. How do these different and often conflicting functions determine content of mass media? Examination of psychological dynamics of advertising, nature of entertainment and mass culture, practice of propaganda, and changing patterns in ownership. Assessment of impact of mass media on individuals and social institutions. Letter grading.

146. Evolution of Mass Media Images. (5) Lecture, four hours; discussion, laboratory, one hour. Analysis of everyday psychology as basis for images se-
lected by media portraying women and/or minorities in entertainment, advertising, and informational communication. Letter grading.

M147. Sociology of Mass Communication. (4) (Same as Sociology, Film and Media Studies M149.) Lecture, four hours; discussion, one hour (when scheduled). Studies in relationship between mass communication and social organization. Topics include history and organization of major media, theories that explain production and distribution of mass media news and entertainment, selected studies in media content, and effects of media on society. P/NP or letter grading.

148. Marketing Communications. (4) Lecture, three hours. Examination of key concepts and methods in consumer insight, branding, market segmentation and positioning, message strategy, promotion, and execution of marketing communications through appropriate media technologies. Letter grading.

M149. Media, Gender, Race, Class, and Sexuality. (5) (Same as Gender Studies M149 and Labor Studies M149.) Lecture, four hours; activity, one hour. Limited to junior/senior Communication and Gender Studies majors and Labor Studies minors. Examination of media technologies. Letter grading.


153. Introduction to Data Science. (4) Lecture, three hours. Requisite: one course from Computer Science 31, 32, Program in Computing 10A, 10B with grade of C+ or better, or equivalent. Examination of how large-scale data can be used to systematically measure various aspects of human activities. Review of series of computational and statistical methods which enable scalable analysis and cost reduction. Students learn to interpret and understand research findings and implications from published work. Review of ethical issues in data science, such as privacy and model bias. Introduction of limitations and risks of current methods. Discussion of various ways to improve transparency and accountability of data-driven research. Letter grading.

154. Social Communication and New Technology. (4) Lecture, three hours. Short-term digital wars were designed for military command. Yet emerging network was gradually co-opted to perform communicative functions such as gossip, dating, news, entertainment, and trading, as well as social effects, and possible futures of digital communication. Letter grading.

155. Artificial Intelligence and New Media. (4) Lecture, three hours; discussion, one hour. Requisite: Computer Science 31 or 32 or Program in Computing 10A or 10B with grade of C+ or better. Artificial intelligence (AI) and machine learning (ML) have made rapid progress in recent years on various fronts. Many of their advanced techniques are being transferred to number of domains, transport of medicine, advertisement, military operations, and social media, and aiding our decision making, planning, reasoning, and forecasting. Review of origin and modern development of artificial intelligence and its recent advances to modern society. Special emphasis on its usages of media industry, e.g., personalized recommendation, and targeted advertising. Discussion of ethical concerns and controversies such as ethical and moral issues of AI, privacy concerns in data collection, and fair use of AI in general. Prior knowledge in mathematics, statistics, or computer science not required. Discussion of elementary technical details as course unfolds. Letter grading.

156. Social Networking. (4) Lecture, three hours. Investigation of how new online social networks have facilitated interpersonal interactions for knowledge sharing, romance, business, politics, and entertainment. Critical investigation of current popular social networking websites (e.g., Facebook, Twitter, YouTube) through social network analysis and social science research methods. P/NP or letter grading.

157. Celebrity, Fame, and Social Media. (4) Lecture, three hours. Analysis of how following personal lives of media-created celebrities impacts self-esteem, connectiveness to cultural figures, and values of youth. Examination of studies and social sciences perspectives, and how celebrities cultivate celebrity for financial gain. Topics include celebrity gossip and privacy, news sharing, brand support, and impact of social media on fan support, image construction, and damage control. P/NP or letter grading.

158. Revolutions in Communication Technology. (4) Lecture, three hours. Study of dynamic processes of innovation in history of communication from its earliest expressions to information age. Examination of developments in speech, images, and writing. Investigation of evolution of broadcasting and print media; technological change, and technological innovation. Letter grading.

159. Artificial Intelligence and Society. (4) Lecture, three hours. Impact of artificial intelligence (AI) on society is growing rapidly. Exploration of questions of what superhuman AI is achieved, will it free humans from tedious jobs or cause mass unemployment, and how to guarantee AI safety so that it will not annihilate human civilization. Letter grading.

160. Political Communication. (4) Lecture, four hours; discussion, one hour. Overview of political communication in political sphere; analysis of contemporary and historical communications within established political institutions; state papers; deliberate discourses; electoral arguments. Letter grading.

161. Presidential Communication. (4) Lecture, three hours. Examination of historical evolution of presidential communication environment, resources, and strategies, as well as how presidential campaign communication has evolved over time and implications for how presidents govern. Letter grading.


163. Agitational Communication. (4) Same as Labor Studies M165. Lecture, four hours; discussion, one hour (when scheduled). Theory of agitation; agitation as force for change in existing institutions and policies in democratic society. Intensive study of selected agitation campaigns and analysis of content of their communications. Letter grading.


166. Communication and Media Law. (4) Lecture, three hours. Focus on sample of most important intersections between law and communication: copyright, trademarks, freedom of speech, privacy, secrecy, surveillance, and public rights. Law and communication have been intertwined since introduction of book censorship and licensing in late 16th century, and blasphemy laws before that. That relationship has grown increasingly complex in time in response to technological change and communication media, evolution of modern state forms, and changing expectations about freedom of and responsibility for both communication and information gathering. From music piracy, knock-offs of famous brands, ubiquitous technological changes in communication media, evolution of closed-circuit television, facial recognition software, global tracking systems, biosensors, and data mining, communication media, and law has become part of our life, on scale and to extent that would have been unthinkable a few years ago. Letter grading.


170. Legal Communication. (4) Lecture, three hours; discussion, one hour. Review of Fifth Amendment privilege against self-incrimination, including analysis of Miranda warnings, police interrogation procedures, confessions, interrogations, and people confess. Examination of jury behavior, reliability of eyewitness testimony, and fair trials. Mock trial presentation. Intimate expression and right to define one’s own consciousness and immersion in examples of evolving rulings on same-sex marriage, abortion, and right to die. Use and misuse of grand juries in police misconduct cases, including Eric Brown, Michael Garner, and Breonna Taylor cases. Questions of judicial activism, legal precedent, and standards of review. Letter grading.

171. Theories of Freedom of Speech and Press. (4) Lecture, three hours. Relationship between freedoms of speech and press and values of liberty, self-realization, self-government, truth, dignity, respect, justice, equality, association, and community. Study of significance of these values in connection with issues such as obscenity, defamation, access to media, and control of corporate, corporate, and government speech. P/NP or letter grading.

173. Affect and Emotion in Political Communication. (4) Lecture, three hours. There is growing body of work in political communication that emphasizes importance of affect, emotion and personality in politics. Sensitivity to threat or disgust; reactions of fear, anger, or happiness; tendencies to focus more on negative than on positive information—each of these can impact feelings about candidates, and positions on wide range of domestic and foreign issues. Many of these feelings are in reaction to emotionally loaded information; and changing media technologies likely increases volume of affective or emotional content reaching public. Review of recent work on these themes, drawn from both media psychology and political communication. Letter grading.

174. Entertainment and Politics. (4) Lecture, three hours. Research in political communication often focuses on news coverage. Our ideas about world around us do not just come from news content, however—we are affected by wide range of entertainment media as well. Consideration of how changes in media technology have increasingly broken down division between news and entertainment, and how work on impacts that entertainment-focused media—including television shows, movies, and music—have on political preferences. Letter grading.

175. Criticism and Public Policy. (4) Lecture, four hours; discussion, one hour (when scheduled). Introduction to methods and problems of criticism in public arts. Study of several types of critical methods: formalistic, aesthetic/pragmatic, and aesthetic criticism. Topics include definition of art and criticism, aesthetic media, genre and resources of film, television, theater, and public discourse, varieties of critical method, problems of critical judgment, and media. letter grading.

176. Visual Communication and Social Advocacy. (4) Same as Labor Studies M176.) Lecture, four hours. Visual communication reaches diverse audiences in communicating major social and political topics. Cartoons, posters, murals, and documentary
photography had powerful world impact. Survey of all four genres of visual communications as features of modern mass media. Letter grading.


179. Images of U.S. (4) Lecture, four hours. Awareness of international role of U.S. necessitates clear understanding of way our nation is perceived by others. Exploration of roots of U.S. images in minds of people abroad. Analysis of influences that contribute to images and ways in which images affect practical matters. P/NP or letter grading.


181. Media and Mind. (4) Lecture, three hours. Investigation of media persuasion and entertainment appeal through three intersecting approaches: study of cognition, of context of personal experience, and hands-on analysis of television, film, and radio. Topics include perception, imagination, narrative, play, emotion, and dreams. Students collaborate with each other to examine images and create their own short stories. P/NP or letter grading.

185. Field Studies in Communication. (2 to 4) Lecture, two hours. Designed for juniors/seniors. Fieldwork in communication. Students participate in two-hour seminars and spend seven hours in approved community settings each week for each 2 units of credit. May be taken for maximum of 4 units per term. P/NP grading.

186. Media, Ethics, and Digital Age: Case-Study Approach. (4) Tutorial, three hours. To publish or not to publish? Study addresses questions of media ethics—based on experiences from Washington, DC-based news media. Letter grading.

187. Ethical and Policy Issues in Institutions of Mass Communication. (4) Seminar, three hours. Intensive examination of ethical and policy issues arising from interaction of media institutions (print, film, broadcasting, and new technologies) and societal institutions (government, courts, schools, churches, political action groups, advertisers, and audiences). P/NP or letter grading.

188. Careers in Communication. (1) Seminar, two hours. Rigorous study of communication theories, research methods, and applications prepares students to succeed in multiple fields, including technology, entertainment, journalism, non-profit, law, education, politics/government, and management. Provides practical skills and the development that helps students transition to being professional in workplace. Consultation of successful industry professionals from variety of fields to understand how they leveraged their education to excel within their organizations. P/NP grading.

188A. Variable Topics in Mass Communication and Media Institutions. (4) Lecture, four hours. Variable topics; consult Schedule of Classes for topics to be offered in specific term. May be repeated for credit with topic change. Letter grading.

188B. Variable Topics in Interpersonal Communication. (4) Lecture, three hours. Variable topics; consult Schedule of Classes for topics to be offered in specific term. May be repeated for credit with topic change. Letter grading.

188C. Variable Topics in Communication Technology and Digital Systems. (4) Lecture, four hours. Variable topics; consult Schedule of Classes for topics to be offered in specific term. May be repeated for credit with topic change. P/NP or letter grading.

188D. Variable Topics in Political and Legal Communication. (4) Lecture, four hours. Variable topics; consult Schedule of Classes for topics to be offered in specific term. May be repeated for credit with topic change. P/NP or letter grading.

188E. Variable Topics: Practicum. (4) Lecture, three hours. Practicum lectures on selected topics in communication. Reading, writing, discussion, and development of culminating project. May be repeated for credit with topic change. P/NP or letter grading.

188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SB. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: course 188SA. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE 88S course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Described as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

191A. Variable Topics Research Seminars: Mass Communication and Media Institutions. (4) Seminar, three hours. Exploration of topics in mass communication. Reading, discussion, and development of culminating project. May be repeated for credit with topic change. P/NP or letter grading.

191B. Variable Topics Research Seminars: Interpersonal Communication. (4) Seminar, three hours. Research seminars on selected topics in interpersonal communication. Reading, discussion, and development of culminating project. May be repeated for credit with topic change. P/NP or letter grading.

191C. Variable Topics Research Seminars: Communication Technology and Digital Systems. (4) Seminar, three hours. Research seminars on selected topics in communication technology and digital systems. Reading, discussion, and development of culminating project. May be repeated for credit with topic change. P/NP or letter grading.

191D. Variable Topics Research Seminars: Political and Legal Communication. (4) Seminar, three hours. Research seminars on selected topics in political and legal communication. Reading, discussion, and development of culminating project. May be repeated for credit with topic change. P/NP or letter grading.

M191DC. CAPP Philipp Washington, DC, Research Seminars. (8) Same as History M191DC, Political Science M191DC, Public Affairs M191DC, and Sociology M191DC. Seminar, three hours. Limited to CAPP Philipp Washington, DC, research seminars. Undergraduate students in Center for American Politics and Public Policy’s program in Washington, DC. Focus on development and execution of original empirical research based on experiences from Washington, DC-based field placements. Study of variety of qualitative methods (observation, interviewing, etc.), with comparison to quantitative analysis. Examination of features of solid and significant research; intensive writing. Letter grading.

191E. Variable Topics Research Seminars: Practicum. (4) Seminar, three hours. Practicum seminars on selected topics in communication. Reading, writing, discussion, and development of culminating project. May be repeated for credit with topic change. P/NP or letter grading.

194. Research Group Seminars: Communication Studies. (2) Seminar, two hours. Designed for undergraduate students who are part of research group. Discussion of research methods and current literature in field or of research of faculty members or students. May be repeated for credit. P/NP grading.

195. Summer Internships. (4) Tutorial, to be arranged. Internship in supervised setting in community agency or business. Students meet with adviser and provide final reports of their experiences. May be repeated for credit. Individual contract with supervising faculty member required. Offered in summer only. P/NP grading.

195DB. UCLA Daily Bruin and Student Media Internship. (2) Tutorial, one hour. Limited to students participating in Daily Bruin. Internship gets student the most benefit from their internship experience with UCLA student media. Students meet biweekly with instructor, provide periodic reports on their experience, and study principles of industry. May be taken for maximum of 12 units. P/NP grading.

197. Individual Studies in Communication Studies. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject area required. May be repeated for credit. Individual contract required. P/NP or letter grading.

198A-198B-198C. Honors Research in Communication Studies. (4–4–4) Tutorial, one hour. Limited to junior/senior majors. May be repeated for credit. Individual contract required. Letter grading. 198A. Requisite: courses 10, 150. Development of comprehensive research project under direct supervision of faculty member. 198B. Requisite: course 198A. Continuation of work initiated in course 198A. Presentation of summary of data gathered and relevant progress to supervising faculty member. 198C. Requisite: course 198B. Completion of research developed in courses 198A, 198B. Presentation of honors project to supervising faculty member.

198A. Directed Research or Senior Project in Communication Studies. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

200. Theories in Communication Science. (4) Seminar, three hours. Exploration of theoretical and methodological approaches that bridge major areas of current interdisciplinary communication science research. S/U or letter grading.

205. Professional Pathways. (1) Seminar, one hour. Exploring PhD training in any of allied social, cognitive, and computational sciences connected to communication career paths. Doctoral students are exposed to range of career pathways. Each meeting focuses on one possible career path and features guest speaker who works in that particular industry. S/U grading.

210. Communication Speaker Series. (2) Seminar, 90 minutes. Designed for graduate students in social and natural sciences. Weekly speaker presentations in communication sciences, Focus on interdisciplinary approaches to psychological, political, and computational communication. S/U grading.

215. Communication Research Laboratory. (1) Research group meeting, one hour. Limited to graduate students. Designed for graduate students in social and natural sciences. Discussion of current research
issues and preliminary findings. Opportunities for feedback on current and proposed research activity. Assigned readings included. May be repeated for credit. S/U grading.

220. Research Methods in Communication Science. (4) Seminar, three hours. Study of how communication science research is conducted with focus on quantitative methodology. Students gain understanding of tools used in conduct research, and experience with these tools through formulating own research ideas and projects. S/U or letter grading.

230. Communication and Cognition. (4) Seminar, three hours. Exploration of how cognitive processes influence multiple aspects of communication, including its evolutionary and biological underpinnings, its relevance for broad types of communication (e.g., interpersonal and mass media), and its integrative capacity across multiple areas of social science research. S/U or letter grading.

231. Advances in Science of Interpersonal Human Communication. (4) Seminar, three hours. Examination of integrative approaches to interpersonal communication processes. Topics include measuring human interactive behavior, experimentation and observational research contexts, and testing theories of human interactive behavior using computational models. S/U grading.


233. Evolution, Sex/Gender, and Communication. (4) Seminar, three hours. Sex—typically, male versus female—is fundamental social category with broad social and biological relevance. It influences our interests, preferences, social strategies, how we communicate with others. It also influences what others expect from us. Within context of this course, term gender refers to one's location on continua of femininity (female-type) and masculinity (male-type) with emphasis on how observers utilize visible cues in face and body to form impressions of other people and how these perceptions are moderated by existing knowledge structures and motivations. S/U or letter grading.

234. Social Vision. (4) Same as Psychology M223G.) Seminar, three hours. Exploration of nascent field of social vision, which focuses on how observers utilize visible cues in face and body to form impressions of other people and how these perceptions are moderated by existing knowledge structures and motivations. S/U or letter grading.

235. Evolution of Vocal Communication. (4) Seminar, three hours. Examination of current research in evolutionary approaches to vocal communication. Topics include introduction to acoustic phonetics, animal signaling, and social communication. S/U or letter grading.


250. Political Communication. (4) Seminar, three hours. Consideration of determinants of media content and degree to which Americans' political opinions and actions are influenced by that content. Specific topics include history of news media, recent media trends, theories of attitude formation and change, media bias, role of sources of news, economics of mass media, processes for shaping news and consumption, ways in which media shape social and political processes. S/U or letter grading.

251. Presidential Communication. (4) Seminar, three hours. Examination of one vital source of presidential power: president's unmatched communicative power. Study of historical evolution of president's communication environment; how this environment shapes and is shaped by presidential communication. S/U or letter grading.

252. Political Parties and Strategic Partisan Communication. (4) Seminar, three hours. Examination of theories about how political parties operate in countries around world. Covers topics including normative roles of political parties in modern democracies, reasons why political parties exist, distinct cooperation mechanisms, party systems variation in number and types of parties across countries, party identification, voting, and internal party dynamics. S/U or letter grading.

253. Affective Political Communication. (4) Seminar, three hours. Consideration of role that affects play in production and consumption of political news, and influence of political communication, behavior, and psychology. S/U or letter grading.

270. Computational Communication. (4) Seminar, three hours. New computational methods developed and applied for communication research along with massive datasets and computing infrastructure enable large-scale quantitative analyses on human communication and activities at scale. Introduction to state-of-art methods in computational social science and how they can be applied in communication research. S/U or letter grading.


272. Cognitive Artificial Intelligence. (4) Seminar, three hours. Study demonstrates how to build artificial intelligence by following principles of human intelligence revealed by cognitive science. These principles include learning from small data; capturing causality of physical world; inferring others' mental states for intuitive social interactions. Students learn to use tools from cognitive science, social sciences, artificial intelligence, computer vision, and robotics. S/U or letter grading.

273. Big Data Analysis with Machine Learning. (4) Seminar, three hours. Preparation: familiarity with coding (Python or R) and basic statistical analysis. Introduction to advanced machine learning methods that can apply to large-scale datasets in text, audio, and visual data modalities. Students learn how to develop, train, and validate machine learning models and apply methods to their own research. S/U or letter grading.

376. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprentice under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

596. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. Limited to Communication graduate students. Directed study on variable topics in consultation with faculty member. S/U or letter grading.

597. Preparation for PhD Qualifying Examination. (2 to 12) Tutorial, to be arranged. Preparation for PhD qualifying examination. Limited to Communication graduate students. May be repeated for credit as necessary with consent of advisor. S/U grading.


COMMUNITY ENGAGEMENT AND SOCIAL CHANGE

Interdisciplinary Minor
College of Letters and Science
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Community Engagement and Social Change
310-825-7867
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Faculty Committee
Andrew G. Atkeson, PhD (Economics)
Jennifer A. Jay, PhD (Civil and Environmental Engineering, Environment and Sustainability)
Rashmita S. Mistry, PhD (Education)
Amy E. Ritterbusch, PhD (Social Welfare)
Rafael Romero, PhD (Biomedical Research)
Ananya Roy, PhD (Geography, Social Welfare, Urban Planning)
David Delgado Shorter, PhD (Anthropology, Gender Studies, World Arts and Cultures/ Dance)

Overview
The Community Engagement and Social Change minor is designed to provide students with a core analytical, experiential, and theoretical framework for understanding three intersecting dimensions of civic engagement at the local level: issues of social inequality, modes of social change, and the community in which the
engagement takes place. The minor can be paired with any major as an applied and active way of putting disciplinary tools to use, and is intended for highly motivated students of any ideological perspective who are committed to education among a broader community of learners. Students complete a core curriculum, elective courses, a course on a strategy of social change, and a community-engaged capstone research project examining a social issue in a specific Los Angeles community context.

Undergraduate Minor

Community Engagement and Social Change Minor

The minor is an interdisciplinary program that creates a unique opportunity for students to examine social inequality and strategies for social change through sustained community engagement in Los Angeles and beyond. It complements any major.

Students have a lower-division or upper-division option for their gateway community-engaged course in the minor, then choose two additional community-engaged learning experiences, a strategy for social change course, and an upper-division elective.

Capstone

Students complete a two-quarter capstone course series in which they learn about different forms of community-engaged research that is conducted with and to benefit a community partner. Working in collaboration with a nonprofit organization, students prepare a community-engaged research proposal and then complete a research paper. Integrated into the capstone course, students develop an e-Portfolio that conveys their journey through the minor.

Admission

To enter the minor, students must have an overall grade-point average of 2.0 or better, submit a completed application, and submit a written statement describing how civic engagement relates to their academic interests or career goals. Digital applications are available.

The Minor


Required Capstone (8 units): Community Engagement and Social Change 191AX, 191BX, with grades of B or better.

Policies

Students may petition to apply one lower-division community-engaged course, one upper-division community-engaged course, or one upper-division elective not listed above toward the minor. Transfer students may petition to apply one lower-division elective not listed above toward the minor. Students may petition to have a capstone sequence that conveys their journey through the minor.

At least one other community-engaged course prior to enrolling in the Community Engagement and Social Change 191AX. Students that are a part of the Astin Scholars program may have the courses Community Engagement and Social Change M180A, M190B, and M190C satisfy the capstone requirement. Students may petition to have a capstone sequence that conveys their journey through the minor. Students may also petition to complete the capstone under the guidance of a faculty sponsor through independent research, Community Engagement and Social Change 199, after completing 191AX. The faculty mentor approves proposed readings as well as length and scope of the final paper or project based on guidelines developed by the faculty committee.

Community Engagement and Social Change

Lower-Division Courses

10. Introduction to Engaged Scholarship. (2) Seminar, two hours. Limited to students participating in preapproved UCLA civic engagement programs. Introduction to history, research, and philosophy of UCLA/University/community partnerships, as well as specific opportunities for active engagement by undergraduate students at UCLA. Offered in summer only. P/NP grading.

18. Bruin Leaders: Model for Social Change. (1) Lecture, two hours; fieldwork, one hour. Introduction to leadership development and civic engagement through community service. Based on nonhierarchical mode of leadership developed by UCLA Graduate School of Education and Information Studies. Topics include diversity issues, organizational skills and team-building development, and personal growth and community service goals. Participation in first-week orientation session required. Consult Schedule of Classes for topics to be offered in specific term. May not be repeated for credit. P/NP grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

50XP Engaging Los Angeles. (8) Formerly numbered 50SL. Lecture, two hours; discussion, two hours. Community-engaged learning course with focus on diverse communities of Los Angeles. Analysis of general shared history of Los Angeles, comparing or contrasting of experiences of different racial/ethnic groups. Engagement in meaningful work off campus to reflect on assets, injustices, and inequities that have shaped experiences of native or immigrant communities. Analysis of Los Angeles in which residents coexist and interact while managing tensions and social justice issues inherent in minority/majority city. Letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

68HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental read-
95A-95B. Introduction to Community-Based Interning. (2) Seminar, three hours; fieldwork, four hours. Limited to juniors/seniors. Service learning course for undergraduate students and community partners through which students gain firsthand experience in evaluation of nonprofit organizations in Los Angeles by research teams. Offered in summer only. Letter grading.

95D. Alternative Spring Break immediately prior to Spring break. Three to four day experiential learning opportunity. Letter grading.

95E. Introduction to Community-Based Internships. (2) Seminar, three hours; fieldwork, four hours. Introduction to community-based work for third-term freshmen/sophomore students who have not completed 90 units. Platform for preplanned, organized, structured, and supervised off-campus experiences with academic context. Acceptable placements include corporate, nonprofit, and governmental organizations as established by Center for Community Engagement. Individual contract with supervising faculty member required. P/NP or letter grading. 

95E-S. Introduction to Community-Based Interning. (2) Seminar, three hours; fieldwork, four hours. Limited to students who are participating members of Jumpstart AmeriCorps literacy program. Service learning course that examines social change. Three to four day experiential learning opportunity. May be repeated once for credit. Individual contract with supervising faculty member required. P/NP or letter grading. 

96. Leadership and Social Change. (2) Seminar, two hours. Exploration of different modes of leadership and consideration of how effective leadership can bring about social change. We live in an extraordinary period of opportunity and challenge—in which breathtaking technological advances sit alongside breathtaking cynicism and corruption. Examination of how effective and inspiring leaders can lead in such an environment, if it is possible to make difference and effect change in face of deep structural inequality, criteria that make effective leader, and if each of us bears within us the potential. Exploration of past models of successful leadership and different models of present-day leadership, drawing on inspiring examples from social activism, politics, religion, law, philanthropy, and education. Students are encouraged to formulate their own models of leadership. Three to four day experiential learning opportunity in leadership development off campus. P/NP grading.

97. Organization and Workforce Readiness. (2) Seminar, two hours. Requisite: course 98A. Analytic training on how to study institutions and organizations. Students identify, contact, and interview practitioners of interest. Site visits to various working environments in Los Angeles area. Analytics training on how to study institutions and organizations and prepare research briefs on organizations/institutions to be visited. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

100XP. Perspectives on Civic Engagement for Social Justice. (2) Seminar, two hours. Requisite: course 98A. Seminar exploring the nature of social, economic, and environmental justice. Students develop a research project designed to contribute to community engagement. Letter grading.

101. Race, Gender, and Data. (4) (Same as Digital Humanities M121.) Seminar, three hours. Requisite: Digital Humanities 101. Students learn to read datasets produced by governmental entities such as the U.S. Census Bureau, Bureau of Labor Statistics, and Department of Health and Human Services. Students analyze data through a participatory approach. Students engage in the analysis of data projects that evaluate and address key concerns facing communities-of-color. Introduction to critical data studies and applied data ethics. Skills such as data visualizations, digital storytelling, and mapping using the latest software tools. No prior knowledge of statistics or quantitative analysis is required. P/NP or letter grading.

M115. Citizenship and Public Service. (4) (Same as Political Science M115C.) Lecture, three or four hours; field placement, two hours. Survey and exploration of immigrant landscape in Los Angeles—truly global city acting in part to buffer, settle, and incorporate immigrants in daily life. Focus on civic society to explore multiple forms of civic engagement that take place in multiple communities across Los Angeles basin. Service learning partnerships focus on organizations addressing immigration concerns. Letter grading.

110. Conflict, Power, Inequality, and Change. (4) Lecture, four hours. Broad historic trend of systems in conflict since beginnings of colonialism, including conflict between industrialized and non-industrialized societies. Examination of modalities and theories of conflict and transformation, with emphasis on three primary forms of societal conflict: social movements, war, and terrorism. Study of resource scarcity through two specific dimensions: how it is leveraged to meet political ends, and how it can be harnessed for conflict intervention, resolution, transformation, and prevention. P/NP or letter grading.

M147. Critical Analysis of Strategies toward Environmental Justice. (4) (Same as Environment M147.) Lecture, three hours. Exploration and engagement in critical analyses of strategies toward environmental justice. Topics including environmental justice, civic engagement, and environmental stewardship, policy advocacy campaigns, citizen science, community engagement, community planning, and urban tree canopy. Strategies are interwoven across four interconnected modules: community exposure to harm; access to ecosystem benefits and services; lack of diversity and engagement; and utilization of social-ecological systems approach. Students conduct case study analysis of strategies employed in efforts to move toward environmental justice, and develop collective course resource on environmental justice strategies. P/NP or letter grading.

150. Social Innovation Theory and Application. (4) Seminar, three hours. Limited to students in UCLA Summer Social Innovation Research Program. Study of social innovation as theory of civic engagement, with particular emphasis on how social innovators have transformed way we address entrenched social issues. Study of elements of existing social innovation movement and engagement methods of social change on campus and in communities. Offered in summer only. Letter grading.

151. Documentary Film Making as Strategy for Social Change. (4) Lecture, two hours; discussion, two hours. Introduction to the documentary form. Students produce films diverse in genre (advocacy, observational, essayistic, ego document, archival) and subject (war, exploitation, incarceration, ecosystem collapse, revolution, genocide). Discussion of films in their historical and artistic
context, and in way they are vehicles for community engagements and social change. P/NP or letter grading.

152. Exploring Social Change: Critical Analysis through Lens of POC/Non-POC organizing. (4) Lecture, four hours. Exploration of theories driving social change and how visions and agendas get organized toward common efforts. Analysis of organizing frameworks through movements for social, economic, and political change. Introduction to praxis, defined by Paulo Freire in Pedagogy of the Oppressed as “reflection and action directed at the structures to be transformed and at the processes of transformation.” P/NP or letter grading.

163SL. Civic Engagement and Public Use of Knowledge: Special Topics. (5) Seminar, three hours; fieldwork, three hours. Limited to juniors/seniors. Service learning course that examines variable topics related to Universidad en la Comunidad (University in the Community) and education in higher education. May be repeated for credit with topic or instructor change. Letter grading.

165XP. Storytelling for Social Justice: Research and Writing with Nonprofit Organizations. (5) Formerly numbered 166SL. Seminar, three hours; fieldwork, two hours. Limited to juniors/seniors. Exploration of how nonprofit organizations use storytelling strategies to advance social justice. Offers opportunity to use research and writing skills telling stories of social justice through print and online media. Students collaborate with nonprofit organizations to complete research and community outreach focused on how storytelling can empower individuals and communities and advance equity in diverse urban centers like Los Angeles. Letter grading.

M170XP. Food Studies and Food Justice in Los Angeles. (4) Formerly numbered M170SL. Seminar, three hours; fieldwork, two hours. Interdisciplinary service learning course that provides general understanding of access and equity barriers in the food system and how food access in Los Angeles is impacted by social justice issues faced by residents of lower-income communities. Reading of research from multiple disciplines, including but not limited to public health, environmental justice, and public policy. Service-learning component includes meaningful work with off-campus community partners selected in advance by instructor and Center for Community Learning. Letter grading.

172XP. Community-Engaged Research to Address Health Disparities. (4) Lecture, three hours; fieldwork, three hours. Examination of use of community-engaged research to understand and address health disparities in communities. Focus on community-driven disease disparities: inequities in risk and outcomes from conditions such as hypertension, diabetes, obesity, heart disease, chronic pulmonary diseases, autoimmune disorders, and cancer. Examination of how these conditions play in COVID-19 risk and disparities, and role that community-engaged strategies can play in preventing or reducing health disparities. Includes case studies, discussions with community partners and researchers, and assignments to explore impact of community engagement on chronic disease disparities and to mitigate inequitable impact of COVID-19. Student teams partner with community organizations and develop partner project, with deliverable to community partner due at end of course. P/NP or letter grading.

M176SL. Addressing Social Determinants in Racial/Ethnic Minority Communities to Reduce and Prevent Health Disparities. (4) Same as Psychology M176SL. Seminar, two hours; fieldwork, 10 hours. Examination of how addressing social determinants in racial/ethnic minority communities can reduce or eliminate physical and mental health disparities. Currently in racial and ethnic minority communities, health status of individuals is a function of both the quality and quantity of health care delivery, exposure to pollutants and toxins, scarcity of supermarkets or stores with fresh produce and nutritional food, noise levels, and variety of other stressors and unhealthy behaviors. Health interventions are often focused on individual-level change or increases in access to healthcare with little in way of changing risk environments. Designed to identify and provide opportunities to understand how to address social determinants to related to negative health outcomes in ra-
cial/ethnic minority neighborhoods and communities and to experience how to use social determinants liter-erature in service of collaborative activities with comm-
unity organizations in the local community. Formerly M176XP. Making Films about Food. (5) Formerly numbered M176SL (Same as Food Studies M176XP and Public Affairs M176XP) Lecture, three hours. Introduction to documentary video production and dis-
tribution for projects, or other activities designed for small groups to create 8- to 10-minute video about one of several Los Angeles partner organizations that advocate for healthy, local, sustainable food. Consider-
ations include production of challenges posed by existing farming, ranching, and distribution methods, and strategies these groups are pursuing to create more sustainable food pathways. Students look at nonfiction media (e.g., stories to help think through intervention in face of historically entrenched industrial food production and regulations that remain unfavorable to mass-produced, processed food items. P/NP or letter grading.

180. Access to Justice: Hope and Reality. (4) Seminar, three hours. Limited to UCLA students who are members of JusticeCorps program through AmeriCorps. JusticeCorps was established as innovative approach to solve justice faced by courts around country today: providing equal access to justice. Examination of promise of justice system in America to provide meaningful access to courts for all who wish to litigate. What structure of U.S. legal system? Exploration of sociopolitical context for current legal system, including origins and current status of legal services and self-help movements, in-
cluding role of JusticeCorps. Were these strategies designed to make promise of equal justice a reality or have they inadvertently, or intentionally, resulted in two-tiered legal system—one for those with means and another for those without? P/NP or letter grading.

188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study and development meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin prepa-
ration of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SB. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced prerequisite: course 188SA. Limited to junior/senior USIE facilitators. Individual study and development meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin prepa-
ration of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced prerequisite: course 188SB. Limited to junior/senior USIE facilitators. Indi-
vidual study in regularly scheduled meetings with fac-
ulty mentor while facilitating USIE 88S course. Indi-
vidual contract with faculty mentor required. May not be repeated. Letter grading.

M188XP. Practicum in Social Entrepreneurship. (4) Formerly numbered M188X. Same as Economics M188XP. Seminar, three hours. Enrollment by consent of instructor. Offers students full-scale immersion into challenges of launching social enterprise. Students work in teams alongside local nonprofit organizations and accelerator program aimed at helping participating organizations se-
cure financial and operational resources they need to implement social enterprise for which viable business plans may already exist. Students meet as as-
signed organization, study its business plan, and work with instructors of course and staff of nonprofit organi-
zation to develop tailored plan of work for 10-week ac-
celerator. Research study is carried out in con-
junction with staff of organization under supervision of instructors and with assistance of experienced entre-
preneur volunteer mentors. P/NP or letter grading.

188D. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed asadjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible stu-
dents. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. De-
signed as adjunct to upper-division lecture course. In-
dividual study with lecture course instructor to explore topics in greater depth through supplemental read-
ings, research, or other activities designed for a maximum of 4 units. Individual honors contract re-
quired. Honors content noted on transcript. Letter grading.

M190A. Introduction to Community-Engaged Re-
search. (4) Formerly numbered M190A. Seminar, three hours. Enrollment by consent of instructor. De-
signed for students participating in Astin Community Scholars Program. Introduction of principles of com-
community engagement and collaboration of intentions behind doing research with community residents and organizations, our responsibilities when conducting research in historically disfavored communities, and relationship between socially-just research out-
comes and methodologies. P/NP or letter grading.

M190B. Community-Engaged Research in Practice: Community Scholars. (4) Same as Labor Studies M190B. Seminar, three hours. Requires: course M190A. Enrollment by consent of instructor. Designed for students participating in Astin Community Scholars Program. Students learn from faculty, community scholars, graduate students, and key academic experts about emerging organizing models, best practices, and changing landscape in chosen topic. Provides students with opportunity to work with leaders from key community and labor organizations across Los Angeles on six-month dynamic participa-
tory research project. Focus on current topic affecting Angelinos and neighboring communities. Key out-
comes may include production of policy reports, pop-
ular education materials, and/or book publication by UCLA Labor Center and collaborative partners. Pri-
mary focus on engaging policy makers and other change agents. P/NP or letter grading.

M190C. Community-Engaged Research in Practice: Community Scholars. (4) Same as Labor Studies M190C. Seminar, three hours. Requires: courses M190A, M190B. Enrollment by consent of instructor. Designed for students participating in Astin Community Scholars Program. Students learn from faculty, community scholars, graduate students, and key academic experts about emerging organizing models, best practices, and changing landscape in chosen topic. Provides students with opportunity to work with leaders from key community and labor organizations across Los Angeles on six-month dynamic participa-
tory research project. Focus on current topic affecting Angelenos and neighboring communities. Key out-
comes may include production of policy reports, pop-
ular education materials, and/or book publication by UCLA Labor Center and collaborative partners. Pri-
mary focus on engaging policy makers and other change agents. P/NP or letter grading.

191AX. Capstone Research Seminar. (4) Formerly numbered 191A. Seminar, three hours. Provides stu-
dents with analytical and applied framework for pro-
cess of researching historical and contemporary social issues and efforts to bring about change in local communities. Letter grading.

191B. Capstone Research Seminar Projects. (4) Formerly numbered 191B. Seminar, three hours. Pro-
vides students with analytical and applied framework for process of researching historical and contempo-
rary research project. Focus on improving Angelenos and neighboring communities. Key out-
comes may include production of policy reports, pop-
ular education materials, and/or book publication by UCLA Labor Center and collaborative partners. Pri-
mary focus on engaging policy makers and other change agents. P/NP or letter grading.
weekly meetings with graduate student instructor, and write final research paper. Faculty mentor and graduate student instructor construct series of reading assignments that examine issues related to internship site. May be repeated for credit with consent of Center for Community Engagement. Individual contract with supervising faculty member required. P/NP or letter grading.

M195DC, Quarter in Washington, DC, Internships. (4) [Same as History M195DC, Political Science M195DC, Public Affairs M195DC, and Sociology M195DC.] Tutorial, four hours. Limited to junior/senior Quarter in Washington program students. Internships in Washington, DC, through Center for American Politics and Public Policy. Students meet on regular basis with instructor and provide periodic reports of their experience. Individual contract with supervising faculty member required. P/NP grading.

198. Honors Research in Civic Engagement. (4) Tutorial, one hour. Development and completion of honors thesis or comprehensive research project under direct supervision of faculty member. Individual contract required. Letter grading.

199. Directed Research or Senior Project in Civic Engagement. (4) Tutorial, to be arranged. Supervised individual research or investigation under guidance of faculty mentor. Culumminating paper or project required. May be repeated once for credit. Individual contract required. Letter grading.

Graduate Course
375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

COMMUNITY HEALTH SCIENCES
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Overview
The Department of Community Health Sciences is concerned with health equity and well-being for all individuals and communities. To understand and foster optimal health among diverse communities, the mission of the department is to prepare students to be interdisciplinary global leaders who can effectively address persistent and emerging public health issues, conduct and disseminate innovative research on the social determinants of health, translate the findings for public health practice, and collaborate with communities in research and training.

Graduate Study
The department offers schoolwide professional (MPH) and academic (MS and PhD) degree programs. Graduates of the professional programs assume positions in the planning, administration, and evaluation of public health programs and policies in the U.S. and abroad. Graduates of the academic programs assume teaching, research, and managerial positions in universities, government agencies, nongovernmental organizations, international health agencies, and research centers.

Graduate Majors
Community Health Sciences MS, PhD

Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Master of Public Health for Health Professionals

Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Community Health Sciences

Lower-Division Courses
19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

48. Nutrition and Food Studies: Principles and Practice. (5) Lecture, three hours; discussion, one hour. Overview of nutritional sciences and public health nutrition. Examination of basic science concepts of nutrition and application of them to student lives and real-world issues through lectures, videos, diet analysis, activities, reports, discussion of video and reading assignments, and reviews of community programs that apply nutrition and behavior theory to improve health of public. Students use observational research methods to create and answer questions about nutrition question in their cohort. P/NP or letter grading.

60. Intergroup Dialogue: Peer Dialogue. (2) Seminar, two hours. Discussion on issues of difference, conflict, and community to facilitate understanding between social/cultural groups. Student participation in semi-structured face-to-face meetings with students from other social identity groups to learn from each others’ perspectives, read and discuss relevant reading material, and explore their own and other groups’ experiences in various social and institutional contexts. Exploration of ways of taking action to create change and bridge differences at interpersonal and social/community levels. P/NP or letter grading.
Upper-Division Courses

100. Introduction to Community Health Sciences. (4) Lecture, four hours. Limited to junior/senior non-majors and with preference given to undergraduates in Public Health minor. Not open for credit to students with credit for course 120. Introductory course to provide students with broad and comprehensive overview of concepts, empirical research, and public health practice in community health sciences, with emphasis on social context and determinants of population health, and principles of planning, intervention, and improvement of health. Includes ways to define and measure health and illness, social construction of illness, social and behavioral determinants of health, and health disparities. Discussion also of social and behavioral theories of health-related behavior change, health promotion strategies and methods, and public policy. Case studies of evidence-based health promotion programs provided. Letter grading.

130. Nutrition and Health. (4) Lecture, three hours; laboratory, one hour. Preparation: one biology course, one chemistry course. Basic and clinical nutrition theory and practice for students in health sciences curriculum. P/NP or letter grading.

131. Healthy Food Access in Los Angeles: History and Practice of Urban Agriculture. (4) Lecture, three hours; laboratory, 90 minutes. History and recent re-vival of urban agriculture (gardening) in Los Angeles area. Exploration of how urban gardening is response to crises such as U.S. obesity epidemic and resulting health problems. Critiques of industrial agriculture in California and elsewhere in U.S. Exploration of how urban agriculture springs from healthy food/active living communities. Students that advocate access to locally grown, in-season, affordable food. Biweekly hands-on gardening laboratory in Sunset Canyon Recreation Center Organic Garden. P/NP or letter grading.

132. Health, Disease, and Health Services in Latin America. (4) Lecture, four hours. Introduction to health, disease, and health services in Latin America, with emphasis on epidemiology, health administration, medical anthropology, and nutrition. P/NP or letter grading.

M140. Health Issues for Asian Americans and Pacific Islanders: Myth or Model? (4) Same as Asian American Studies M140. Lecture, fieldwork, one hour. Introductory overview of mental and physical health issues of Asian Americans and Pacific Islanders; identification of gaps in health status indicators and barriers to health care. Further development of knowledge and research for these populations. Letter grading.

160. Intergroup Dialogue: Theory and Practice of Peer Facilitation. (4) Lecture, four hours. Recommended requisite: course 60. Discussion of issues of different/conflict to facilitate understanding among social/cultural groups. Peer facilitator training course to develop understanding of theoretical and research foundations of intergroup dialogue, peer-facilitated discussions involving relationships building and musical engagement around different social identity issues. Study of variety of techniques, tools, and strategies to support students in their capacity to implement sustained dialogues with others from social identity groups. Letter grading.

161. Intergroup Dialogue: Training Practicum. (4) Seminar, four hours: course 160. Application and further development of content and skills learned in course 160. Co-facilitation of weekly dialogues with students on specific identity theme and further development of knowledge and techniques in areas of group dynamics, conflict intervention, communication and community, and mental health effects of structural inequality as they relate to discussions of social justice and multicultural issues. Readings in these areas and discussions of ongoing dialogue dynamics. May be repeated once for credit. Letter grading.


181. Campus/Community Health and Wellness Promotion: From Theory to Practice. (4) Lecture, two hours; discussion, two hours. Limited to juniors/seniors. Theory, training, and experience in health/wellness promotion and health/wellness education in selected campus communities. Participation in supervised small-group program planning project. Letter grading.

187A-187B. Introduction to Interventions for At-Risk Populations. (4–4) Lecture, three hours; committee meetings/community service, two to six hours. Course 187A is requisite to 187B. Designed for juniors/seniors. Health and social needs/services from primarily public health perspective, drawing on related academic/professional disciplines. Community-based service learning strategy used to enhance knowledge of concepts covered. As part of service portion, students trained as caseworkers and committee members. Letter grading.

188A-188B. Special Courses in Community Health Sciences. (1–4) Lecture, two hours (188A) and three hours (188B). Examination of current topics or particular subfields or experimental or temporary courses in community health sciences. Specific topic areas vary with instructor. May be repeated for credit with topic change. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors and departmental honors programs. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. Letter grading.

195. Community or Corporate Internships in Community Health Sciences. (4) Tutorial, six hours. Limited to juniors/seniors. Internship in supervised setting in community agency or business. Internship supervised by public health organization for which students do internship. Students meet on regular basis with instructor and provide periodic reports of their experiences. May be repeated for credit. Community or corporate contract with supervising placement sponsor required. P/NP or letter grading.

197. Individual Studies in Community Health Sciences. (2 to 4) Tutorial, four hours. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of research or project matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

199. Directed Research in Community Health Sciences. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Entry-level research apprenticeship under guidance of faculty mentor with affiliated research interests. Collaboration with faculty mentors on their research in area related to community health sciences. May be repeated for credit. Directed research contract required. Letter grading.

Graduate Courses

205. Immigrant Health. (4) Lecture, two hours; discussion, one hour. Limited to graduate students. Overview of key topics in public health for documented and undocumented immigrants and refugees in the U.S. Demographics, health status, behavioral risk factors, and social determinants, health and human rights, and access to healthcare and prevention services. Analysis of public policy across topics. Builds skills necessary to approach public health in immigrant populations. Letter grading.

M208. Introduction to Demographic Methods. (4) (Same as Biostatistics M208, Economics M208, and Sociology M213A.) Lecture, four hours. Preparation: one introductory statistics course. Introduction to methods of demographic analysis. Topics include demographic rates, standardization, decomposition of differentials, and more. Computer simulation and application of demographic processes to gauge conclusions from demographic models. Estimation of demographic models in human population and broader relevance of demographic analysis to study of any population or system, including health and social systems. S/U or letter grading.

210. Community Health Sciences. (4–4) Lecture, three hours. Use of comparative international approaches to health promotion and health education at community level. Use of comparative international approaches to health promotion and health education at community level. Preparation: three modules. Letter grading.

211A-211B. Program Planning, Research, and Evaluation in Community Health Sciences. (4–4) Lecture, three hours; discussion, one hour. Preparation: one social sciences course. Basic concepts, relationships, and policy issues in field of community health, variability in definitions of health and illness, correlates of health and illness, health care delivery system, public health, community structure on health status, major contemporary approaches to health promotion, and health education at community level. Use of comparative international perspectives. Letter grading.

211A. Program Planning, Research, and Evaluation in Community Health Sciences. (4) Lecture, three hours; discussion, one hour. Preparation: one social sciences course. Basic concepts, relationships, and policy issues in field of community health, variability in definitions of health and illness, correlates of health and illness, health care delivery system, public health, community structure on health status, major contemporary approaches to health promotion, and health education at community level. Use of comparative international perspectives. Letter grading.

211B. Program Planning, Research, and Evaluation in Community Health Sciences. (4) Lecture, three hours; discussion, one hour. Preparation: one social sciences course. Basic concepts, relationships, and policy issues in field of community health, variability in definitions of health and illness, correlates of health and illness, health care delivery system, public health, community structure on health status, major contemporary approaches to health promotion, and health education at community level. Use of comparative international perspectives. Letter grading.

211A-211B. Program Planning, Research, and Evaluation in Community Health Sciences. (4–4) Lecture, three hours; discussion, one hour. Preparation: one social sciences course. Basic concepts, relationships, and policy issues in field of community health, variability in definitions of health and illness, correlates of health and illness, health care delivery system, public health, community structure on health status, major contemporary approaches to health promotion, and health education at community level. Use of comparative international perspectives. Letter grading.

212. Advanced Social Research Methods in Health. (4) Lecture, four hours; laboratory, two hours; outside assignments, eight hours. Course 212A is requisite to 212B. Development of planning, and administration of public health programs in community settings. Introduction to range of research methods and techniques used in designing and conducting health research, with particular emphasis on evaluation of community-based public health programs. Course organized into three modules. Letter grading.

211A. Program Planning, Research, and Evaluation in Community Health Sciences. (4) Lecture, three hours; discussion, one hour. Preparation: one social sciences course. Basic concepts, relationships, and policy issues in field of community health, variability in definitions of health and illness, correlates of health and illness, health care delivery system, public health, community structure on health status, major contemporary approaches to health promotion, and health education at community level. Use of comparative international perspectives. Letter grading.

211B. Program Planning, Research, and Evaluation in Community Health Sciences. (4) Lecture, three hours; discussion, one hour. Preparation: one social sciences course. Basic concepts, relationships, and policy issues in field of community health, variability in definitions of health and illness, correlates of health and illness, health care delivery system, public health, community structure on health status, major contemporary approaches to health promotion, and health education at community level. Use of comparative international perspectives. Letter grading.

211A-211B. Program Planning, Research, and Evaluation in Community Health Sciences. (4–4) Lecture, three hours; discussion, one hour. Preparation: one social sciences course. Basic concepts, relationships, and policy issues in field of community health, variability in definitions of health and illness, correlates of health and illness, health care delivery system, public health, community structure on health status, major contemporary approaches to health promotion, and health education at community level. Use of comparative international perspectives. Letter grading.

211A. Program Planning, Research, and Evaluation in Community Health Sciences. (4) Lecture, three hours; discussion, one hour. Preparation: one social sciences course. Basic concepts, relationships, and policy issues in field of community health, variability in definitions of health and illness, correlates of health and illness, health care delivery system, public health, community structure on health status, major contemporary approaches to health promotion, and health education at community level. Use of comparative international perspectives. Letter grading.

211B. Program Planning, Research, and Evaluation in Community Health Sciences. (4) Lecture, three hours; discussion, one hour. Preparation: one social sciences course. Basic concepts, relationships, and policy issues in field of community health, variability in definitions of health and illness, correlates of health and illness, health care delivery system, public health, community structure on health status, major contemporary approaches to health promotion, and health education at community level. Use of comparative international perspectives. Letter grading.

211A-211B. Program Planning, Research, and Evaluation in Community Health Sciences. (4–4) Lecture, three hours; discussion, one hour. Preparation: one social sciences course. Basic concepts, relationships, and policy issues in field of community health, variability in definitions of health and illness, correlates of health and illness, health care delivery system, public health, community structure on health status, major contemporary approaches to health promotion, and health education at community level. Use of comparative international perspectives. Letter grading.

211A. Program Planning, Research, and Evaluation in Community Health Sciences. (4) Lecture, three hours; discussion, one hour. Preparation: one social sciences course. Basic concepts, relationships, and policy issues in field of community health, variability in definitions of health and illness, correlates of health and illness, health care delivery system, public health, community structure on health status, major contemporary approaches to health promotion, and health education at community level. Use of comparative international perspectives. Letter grading.
and mental development; impact of ecological, socioeconomic, and cultural factors on nutrition, nutrition education, and service. Letter grading.

M232. Determinants of Health. (4) (Same as Health Policy M242.) Lecture, three hours; discussion, one hour. Designed for graduate students. Critical analysis of models for what determines health and evidence for social, economic, environmental, genetic, health system, and other factors that influence health of populations and defined subgroups. Letter grading.

233. Hunger and Food Insecurity as Public Health Issues. (4) Lecture, three hours. Designed for graduate students. Public health aspects of hunger and food insecurity in international perspectives, including measurement and identification of vulnerability, prevention, and options for relieving acute food shortage. Letter grading.

M234. Obesity, Physical Activity, and Nutrition Seminar. (4) (Same as Policy M255.) Seminar, three hours; outside study, one hour. Designed for graduate students. Multidisciplinary introduction at graduate level to epidemiology, physiology, and current state of preventive and therapeutic approaches to obesity in adults and children, including public health policy approaches to healthy nutrition and physical activity promotion. S/U or letter grading.

235. Influence of Social and Physical Environment on Racial Health Disparities. (4) Seminar, three hours. Preparation: at least one biostatistics or epidemiology course. Limited to graduate students. Examination of how components of the social and physical environment interact to influence health and life expectancy of populations living in harmful environments? Is relationship between environment and health disparities merely one of potential exposure to chemical/physical hazards, or are there psychosocial mechanisms at community level that act above or beyond effects of physical environment? Letter grading.

M237. Evolving Paradigms of Prevention: Interventions in Early Childhood. (4) (Same as Health Policy M230.) Seminar, three hours. Recommended for graduate students. Introduction to use of early childhood interventions as means of preventing adverse health and developmental outcomes. Concepts of developmental vulnerability, and low income populations live in harmful environments? Is relationship between environment and health disparities merely one of potential exposure to chemical/physical hazards, or are there psychosocial mechanisms at community level that act above or beyond effects of physical environment? Letter grading.

238. Evolving Paradigms of Prevention: Interventions in Adolescence. (4) Seminar, three hours. Adolescent health and interventions, with focus on sex, alcohol, and drug use. Focus on adolescent identity development, adolescence subcultures, gay, lesbian, bisexual, and transgender issues, and content of sexual risk-taking behavior, and alcohol and drug use (e.g., peer influence, changes in brain activity) and interventions that have been developed to address these behaviors. Building of skills to work with adolescent populations and in community-based settings. Letter grading.

M239. Race, Ethnicity, and Culture as Concepts in Practice and Policy. (4) (Same as American Studies M239.) Seminar, three hours. Integration of cross-cultural findings in healthcare with current American (U.S.) healthcare system paradigms to facilitate design of public health programs and train culturally competent practitioners. Letter grading.

240. Child and Reproductive Health in Communities: Global Environmental Perspective. (4) Lecture, three hours. Limited to graduate students. Interdisciplinary examination of global issues of child and reproductive health in relation to environmental factors in interplay with socioeconomic and biological factors. Environmental influences on pathophysiology, pharmacology, and potential modifiable factors, such as access to safe water or urbanization, as well as environmental contribution to high-burden outcomes in childhood and reproduction. Focus on lower income settings and discussion of relevant population-based approaches to assessment and intervention. Letter grading.

246. Women’s Roles and Family Health. (4) Lecture, two hours; discussion, one hour. Rapidly changing roles of women throughout world are having important effects on women’s own health and that of their families. Analysis of multidisciplinary research from both developed and developing countries to provide basis for in-depth discussion of programmatic and policy implications. Letter grading.

247. Population Change and Public Policy. (4) Lecture, four hours. Examination of international population change, demographic trends, and challenges. Debate regarding contemporary challenges and approaches currently used to address some of main causes of death and disability in U.S. including to bacco, alcohol, firearms, food and nutrition, and motor vehicle safety. Readings, case studies, exploration of public policy data, group discussions based on individual research. Students engage in critically analyzing evidence for different approaches currently used to address some of main causes of death and disability in U.S. including tobacco, alcohol, firearms, food and nutrition, and motor vehicle safety. Letter grading.

M249L. Ethical Theory and Applications in Public Health. (4) (Same as Health Policy M258.) Lecture, four hours, Requisites: Health Policy 200A, 200B. In troduction to ethical theories and critical ethical issues pertaining to healthcare policy and humanitarian research. Writing, research, and discussion on variety of topics related to health and human rights to enhance professionalism, leadership, and systems thinking and improve student sensitivity to needs of patients, caregivers, and fiduciary shareholders. How ethics are foundation of leadership. Letter grading.

250. HIV/AIDS and Culture in Latin America. (4) (Same as Latin American Studies M254.) Lecture, three hours. Exploration of cultural, political, and public health context for people living with and at risk for HIV/AIDS and their families in Latin America. Public health aspects, impacts of epidemiology, comorbid concerns and community interventions, medical anthropological study of experience of those impacted, and grass-roots responses, as well as political/economic context addressing poverty and structural violence. Letter grading.

M251. Nutritional Epidemiology I. (4) (Same as Epidemiology M254.) Lecture, two hours; discussion/laboratory, one hour, Preparation: introductory biostatistics and epidemiology courses. Review of all aspects of contemporary nutrition sciences that require application of epidemiologic principles and methods, ranging from food-borne outbreak investigation to complex multivariable regression assessment of health claims for foods. Experience in actual world of collecting, analyzing, and interpreting data related to nutrition and health or disease outcomes. S/U or letter grading.


254. Intentional Disasters: War and Refugees. (2) Lecture, two hours. Recommended requisites: courses 211A, 211B, 285. Epidemiology 100, one survey methods course. Previous international experience strongly encouraged. Overview of intentional disasters, with focus on technically underdeveloped areas of conflict and postconflict settings. Emphasis on role of human rights in prevention of common emergency health problems and coordinated response, with specific attention to bioterrorism. Examination of tools to help students prevent, detect, and intervene in infectious disease outbreaks. Inter disciplinary sessions also attended by students in Schools of Dentistry, Medicine, and Nursing during weeks two through five. Letter grading.

257. Program Planning in Community Disaster Preparation. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 211A, 211B, 295. Health education and emergency management princi ples, analysis of how community health affects preparation and evaluate community disaster preparedness programs, including needs assessment, identification of target population, objective writing, program planning, and process, outcome, and impact evaluation. Letter grading.

258. Cooperative Interagency Management in Disasters. (4) Lecture, four hours. Recommended requisites: courses 211A, 211B, 295. Examination of how disaster responses work together to handle impact of mass population emergencies. Identification of role of local, state, and federal governments, nonprofit and private organizations, and nonhealth care facilities in disaster situations. Students meet with representatives of different agencies involved in disaster responses and visit one of area’s state’s of-art emergency management organizations for field visits. Letter grading.

M259. Smoking, Drinking, Shooting, and Driving: Understanding Public Health Policy in U.S. (4) Lecture, two hours; discussion, four hours. Recommended requisites: Community Health Sciences 286. Overview of essential theories regarding development, implementation, and impact of public health policies in the U.S., with emphasis on state and local examples. Students develop skills in public health policy research (laws, regulations, statutes, ordinances) and engage in critically analyzing evidence for different approaches currently used to address some of main causes of death and disability in U.S. including tobacco, alcohol, firearms, food and nutrition, and motor vehicle safety. Letter grading.


M263. Social Demography of Los Angeles. (4) (Same as Sociology M263.) Lecture, three hours. Recommended for graduate students. Use of city of Los Angeles to examine major social and demographic factors that characterize cities in U.S. Examination of role of these factors in affecting health outcomes. Letter grading.

M264. Latin America: Traditional Medicine, Shamenism, and Folk Illness. (4) (Same as Anthropology M230Q and Latin American Studies M264.) Lecture, three hours. Recommended preparation: course 132, bilingual English/Spanish skills. Examination of role of traditional medicine and shamanism in Latin America and exploration of how indigenous and mestizo groups diagnose and treat folk illness and Western-defined diseases with variety of health-seeking methods. Examination of art, music, and ritual and case examples of religion and healing practices via professional and laypeople, as well as indigenous and nonindigenous. Letter grading.
depth analysis of theories, methods, and research on which community health sciences are based. Letter grading.

271. Health-Related Behavior Change. (4) Lecture, four hours. Understanding the biological science approach to natural determinants of changes, as foundation for planned change in health-related behavior at community, group, and individual levels. Letter grading.

M272. Social Epidemiology. (4) Same as Epidemiology M272.) Lecture, two hours; discussion, one hour. Requisite: Epidemiology 100 or Public Health 200A and 200B. Relationship between sociological, cultural, and biological factors in etiology, occurrence, and distribution of morbidity and mortality. Emphasis on lifestyles and other socioeconomic factors associated with general susceptibility to disease and survival. Letter grading.


277. Advanced Community Health Education. (4) Lecture, two hours; discussion, two hours. Requisite: course 210. Before planning educational components of health program, one must assess behaviors and factors associated with the problem. Conceptual, theoretical, and evaluative skills developed and applied in constructing community-based educational program. Letter grading.

M278. Work and Health. (4) Same as Environmental Health Sciences M278.) Lecture, three hours; practicum, one hour. Recommended preparation: graduate-level methods/statistics course, basic epidemiology. Designed for graduate students. Exploration of impact of work on physical and psychological health in context of newly emerging discipline. Focus on psychosocial models, measurement (including hands-on experience), contextual factors (gender, ethnic, social class), and how work stresses can be ameliorated. S/U or letter grading.

281A. Capstone Seminar: Health Promotion and Education. (4) Seminar, 90 minutes; discussion, 90 minutes. Enforced requisites: course 278, course 282. Current problems and findings in health promotion and education (e.g., nutrition, family health, AIDS/HIV, minority health); learning from presentations and critical discussions of master’s project reports completed under faculty supervision. Letter grading.

281B. Capstone Seminar: Health Promotion and Education. (2) Seminar, one hour; discussion, one hour. Current problems and findings in health promotion and education (e.g., nutrition, family health, AIDS/HIV, minority health); learning from presentations and critical discussions of master’s project reports completed under faculty supervision. Letter grading.

282. Social Marketing for Health Promotion and Communication. (4) Lecture, three hours; fieldwork, one hour. Requisite: course 210. Planning, creating, implementation, and evaluation of comprehensive health communication campaigns, including use of social marketing strategies and social marketing research, marketing psychology, creative message development, branding, comprehensive media use for dissemination, transmedia. Competencies: conducting focus group interviews, creating and evaluating effective health campaigns, critical assessment of existing campaigns. Letter grading.

283. Evidence-Based Health Promotion Programs for Older Adults. (4) Seminar, three hours. Requisite: course 210. Graduate seminar designed to explore sociocultural determinants of health-related behaviors among aged. Letter grading.

284. Sociocultural Aspects of Mental Health. (4) Seminar, three hours. Requisite: course 210. Designed for graduate students. Examination of how society shapes mental health of its members and lives of those who have been identified as mentally ill. Group differences (e.g., gender, ethnicity) in disorder and how it is socially constructed. Letter grading.

286. Doctoral Roundtable in Community Health Sciences. (4) Seminar, two hours. Designed for departmental doctoral students who must enroll every term until they are advanced. Interdisciplinary seminar with focus on research process and social mechanisms in science. May be repeated for credit. S/U grading.

M297. Politics of Health Policy. (4) (Same as Health Policy M297.) Lecture, three hours; discussion, one hour. Examination of politics of health policy process through analysis of case studies such as environmental protection, Affordable Care Act, provision of preventive health services for women, and racial and income inequality and health. Examination of framework for assessing evidence-based policy making and effects of political structure and political party divisions, including efforts such as to repeal and dismantle Affordable Care Act. Letter grading.

288. Health Communication in Popular Media. (4) Lecture, three hours; discussion, one hour. Requisites: course 210 or prior social sciences courses. Media utilization, media effects, media content, media advocacy, media literacy, health journalism, video and audio storytelling techniques, new media, entertainment education. Competencies: media content analysis, writing popular nonfiction (blogs, journalism), creating and evaluating effective communications using popular media. Letter grading.

290. Race, Class, Culture, and Aging. (4) Lecture, three hours; discussion, one hour. Experience of aging for African American, Latino, and Asian elderly examined in context of their families, communities, and nation. Exploration of cultural and structural influences on health and lived experiences of those elders. Letter grading.

291. Health Policy and Aged. (4) Lecture, three hours; discussion, one hour. Examination of political, economic, and social factors influencing health policy for aged, identifying failings in those policies within framework of broader health policy problems. Letter grading.

292. Information Technology for Health Promotion and Communication. (4) Lecture, three hours; field practice, one hour. Requisites: course 210 or prior social sciences courses. Health literacy, Internet use and health communication, design of health communication materials using digital media that integrates practice and theory and includes websites, print materials, short videos, curricula, and training materials. Laboratory sessions for materials production. Competencies: creating and integrating diverse health messages using new media technology information applied to website, social media, print media, video, and audio platforms. Letter grading.

293. Social and Behavioral Research in AIDS: Roundtable Discussion. (2 to 4) Discussion, two hours; individual consultation, two hours. Review and discussion of research programs directed toward identification of psychosocial, biobehavioral, environmental, and community factors related to prevention and control of AIDS/HIV. Letter grading.

M294. Social and Behavioral Factors of HIV/AIDS: Global Perspective. (4) (Same as Psychiatry M294.) Lecture, three hours; Enforced requisites: course 100 and Epidemiology 100, or prior social sciences courses. Overview of social and behavioral factors that influence both transmission and prevention of HIV/AIDS throughout world. Letter grading.


296. Advanced Research Topics in Community Health Sciences. (2 to 4) Lecture, two to four hours. Advanced study and analysis of current topics in community health sciences. Discussion of current research and literature in research specialty of faculty member teaching course. May be repeated for credit. S/U or letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

400. Field Study in Public Health. (4) Fieldwork, to be arranged. Designed for students selected by a university or professional public health organization for health promotion or medical care. Students must file placement and program training documentation on form available from Study Abroad Office (OAS) prior to being admitted toward MS minimum course requirement; 4 units may be applied toward 60-unit minimum total required for MPH degree. Letter grading.

M411. Issues in Cancer Prevention and Development Control. (4) (Same as Health Policy M411.) Lecture, four hours. Designed for juniors/seniors and graduate students. Introduction to causes and characteristics of cancer epidemic, cancer control goals for nation, and interventions designed to encourage smoking cessation/ prevention, cancer screening, and other dietary, psychosocial, and lifestyle changes. Letter grading.

M420. Children with Special Healthcare Needs: Systems Perspective. (4) (Same as Health Policy M420 and Public Policy M420.) Lecture, three hours; fieldwork, one hour. Examination and evaluation of principles, policies, programs, and practices that have evolved to identify, assess, and meet special needs of infants, children, and adolescents with developmental disabilities or chronic illness and their families. Letter grading.

427. Reproductive Health in Sub-Saharan Africa. (4) Lecture, four hours. Required course: course 247. In-depth understanding of reproductive health challenges facing sub-Saharan Africa and main programs designed to address them. Topics include family planning, STIs, maternal and infant mortality, AIDS, refugees. Letter grading.

M428. Child and Family Health Program Community Leadership Seminar. (2) (Same as Health Policy M428.) Seminar, two hours. Designed for graduate students. Examination of leadership in community-based organizations (CBOs) and role of leadership in decision-making process involved in major issues facing maternal and child health in Los Angeles County. Focus on specific leadership competencies that are or should be employed by organizations effective in shaping maternal and child health programs and policies (or any population-level policies and programs). Leaders from CBOs meet with current and former students, comment on their practicum experiences, and underscore community leadership concepts demonstrated by those CBOs. S/U or letter grading.

M430. Building Advocacy Skills: Reproductive Health Focus. (2) (Same as Health Policy M430.) Seminar, three hours. Recommended requisite: one prior health policy course such as Community Health Sciences 247 or Health Policy 235. Designed for School of Public Health graduate and doctoral students. Skills-building course to develop capability in assessing, developing, and implementing advocacy strategies for reproductive health initiatives. Introduction to legislative and community advocacy initiatives and to policymaking process, including policy analysis and development of resources necessary for legislative advocacy. Identification of goals and objectives, development of advocacy plan, coalition building, organizational capacity building, media relations, and message development for various audiences. Students learn about range of former and current reproductive health advocacy campaigns. Letter grading.

431. Foundations of Reproductive Health. (4) Lecture, three hours. Limited to graduate students. Understanding reproductive health practices is critical for public health students interested in designing programs to address problems such as unwanted pregnancy, family planning, sexually transmitted diseases, and inadequate preventive services. Examination of foundations of reproductive health from medical perspective, with particular attention to implications for public health programs, health services, and policy. Topics include anatomy and physi-
Methods of birth control, medical and surgical abortion, infertility, maternal care, and sexual violence and trauma. SU or letter grading.

432. Perinatal Healthcare: Principles, Programs, and Policies. (4) Lecture; three hours; discussion, one hour. Comprehensive examination of perinatal healthcare, including perinatal epidemiology, outcome measures, public health policies, new technology, regionalization, organization of services at federal, state, and county levels, and medical/legal issues. SU or letter grading.

434A. Maternal and Child Health in Developing Areas. (4) Lecture, three hours; fieldwork, one hour. Major health problems of mothers and children in developing areas, stressing causation, management, and prevention. Particular reference to adapting programs to limited resources in cross-cultural milieus. SU or letter grading.

435. Seminar: Advanced Issues in Women’s Health. (4) Seminar, three hours. Preparation: at least one prior women’s health course, one to two biostatistics courses, one research methods course. Provides more advanced and in-depth understanding of ways in which scientists know; and considerations of women’s place in scientific discourse. Examination of series of case studies as starting point for discussion. Letter grading.


440. Public Health and National Security at U.S.-Mexico Border. (4) Lecture, two hours; discussion, one hour; research and literature review, one hour. Designed for graduate students. Exploration of community and environmental health and health services issues that are present along U.S.-Mexico and coastal California borders. Integrated within public health framework are issues of migration of national security and disaster/terrorist risks and hazards. Letter grading.

441. Planning and Evaluation of Global Health Programs. (4) Lecture, four hours. Theory, guidelines, and teamwork exercises to develop community-based family planning projects in U.S. and in developing countries. Phases include community needs identification; goal setting; program development; funding; staffing; evaluation design; data and cost analysis; and project presentation. Letter grading.

444. Anthropometric and Dietary Aspects of Nutritional Assessment. (4) Lecture, two hours; discussion, one hour; practical work, one hour. Practical skills in anthropometric and dietary assessment, including selection of appropriate methods, data gathering and handling, and analysis and presentation. Letter grading.

446. Nutrition Education and Training: Third World Contexts. (4) Lecture, two hours; discussion, one hour; student participation, one hour. Requisite: course 434A. Problems and priorities in nutrition education and training for families and health workers in Third World countries, including new concepts in primary healthcare services, mass media, communications, and governmental and international interventions. SU or letter grading.

447. Health and Social Context in Middle East. (4) Lecture, four hours. Recommended preparation: background in Islamic or Middle Eastern studies. Requisite: course 200 or 230, 434A. Current health problems and international factors in Middle Eastern countries and implications for socioeconomic development. Review of economic, demographic, and cultural variation of region to provide background for discussion of trends and patterns of health and nutritional status in that population in area. Letter grading.

448. Nutrition Policies and Programs: Domestic and International Perspectives. (4) Lecture, two hours; discussion, two hours; field visits. Preparation: one nutrition sciences course and/or nutrition program experience. Nutrition programs and policies in U.S. and developing countries compared and contrasted. Analysis of role of major international, governmental, and non-governmental agencies. Emphasis on meeting needs of vulnerable populations. Letter grading.

449. Nutrition and Chronic Disease. (4) Lecture, four hours. Requisite: course 130 or one introductory nutrition or biology course. Advanced-level seminar on nutrient metabolism, diet and chronic disease. Examination of role of nutrition in disease prevention, nutritional and metabolic responses to disease, and role of nutritional therapy in management of disease. Letter grading.

451. Post-Disaster Community Health. (4) Lecture, four hours. Examination of public health research and practices can be combined to address post-disaster community health needs. Identification of disaster-related problems, data collection strategies, and service delivery approaches in post-disaster environment. Letter grading.

452. Management of Food and Nutrition in Major Emergencies. (4) Lecture, three hours. Designed for second-year master’s or doctoral students interested in humanitarian relief. Basic principles required to design rational and cost-effective food and nutrition emergency relief approaches and programs. Letter grading.

CM470. Improving Worker Health: Social Movements, Policy Debates, and Public Health. (4) Same as Environmental Health Sciences M471 and Urban Planning M470.) Lecture, three hours; fieldwork, two hours. Examination of intersection between work, health, and environment, analysis of social causes of health disparities, investigation of historical trends and social movements, interpretation of current policy debates, and development of innovative interventions. Concurrently scheduled with course CM170. SU or letter grading.

477. Health Disparities, Health Equity, and Sexual Minority Populations. (4) Lecture, two hours; discussion, one hour. Limited to graduate students. Examination of health disparities affecting sexual minority populations, category that includes lesbians, gay men, bisexuals, and transgender (LGBT) persons. Use of Healthy People 2010 Companion Document for LGBT Health to outline key health issues and national recommendations for achieving reductions in each area. Discussion of considerations for providing clinical care and public health practice in this population, unique social and contextual factors influencing LGBT health, and methodological issues for conducting research among LGBT persons. SU or letter grading.

482. Practicum: Community Health Sciences. (4) Discussion, two hours; fieldwork, up to 20 hours. Requisites: courses 210, 211A, 211B. Understanding of professional practice in health-related organizations. Letter grading.

484. Risk Communications. (4) Lecture, three hours; fieldwork, one hour. Requisites: courses 210, 211A, and 211B, or prior public health and behavioral sciences courses. Risk communication theory, research, and practice, including social and psychological bases of population risk perceptions, media theories, and how risk is portrayed in media. Environmental, product safety, food-borne and infectious disease, disasters, and bioterrorism communication. Competencies: understanding everyday and emergency risk communication principles, creating valid risk communication messages and materials, working proactively with new media. Letter grading.

485. Resource Development for Community Health Programs. (4) Lecture, three hours; fieldwork, one hour. Enforced requisites: courses 211A, 211B, Public Health 200A, or permission of instructor. Designed for graduate students. Course summary of fund and resource development for public health and community-based programs. Lectures and workshops include developing grant proposals, researching funding sources, evaluating proposals, developing volunteer and in-kind resources, and implementing capital campaigns. Letter grading.


501. Cooperative Program. (2 to 8) Tutorial, to be arranged. Preparation: consent of UCLA graduate advisor, graduate dean, and host campus instructor, department chair, and graduate dean. Used to record enrollment of UCLA students in courses taken under cooperative arrangements with USC. No more than 8 units may be applied toward master’s degree minimum total course requirement; may not be applied toward minimum graduate course requirement. SU or letter grading.

596. Directed Individual Study or Research. (2 to 12) Tutorial, to be arranged. Limited to graduate students. Individual guided studies under direct faculty supervision. Only 4 units may be applied toward MPH and MS minimum total course requirement. May be repeated for credit. SU or letter grading.

597. Preparation for Master’s Comprehensive or Doctoral Qualifying Examinations. (2 to 12) Tutorial, to be arranged. Limited to graduate students. May not be applied toward any degree course requirements. May be repeated for credit. SU or letter grading.

598. Master’s Thesis Research. (2 to 8) Tutorial, to be arranged. Only 4 units may be applied toward MPH and MS minimum total course requirement; may not be applied toward minimum graduate course requirement. May be repeated for credit. SU or letter grading.

599. Doctoral Dissertation Research. (2 to 12) Tutorial, to be arranged. May not be applied toward any degree course requirements. May be repeated for credit. SU or letter grading.

COMPARATIVE LITERATURE

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Comparative Literature
310-825-7650
Department e-mail
Michael Rothberg, PhD, Chair
Nouri Gana, PhD, Director, Undergraduate Studies
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Faculty Roster

Professors
Ali Behdad, PhD (John Charles Hills Professor of Literature)
Massimo Ciavolella, PhD (Franklin D. Murphy Professor of Italian Renaissance Studies)
Nouri Gana, PhD
Eleanor K. Kaufman, PhD
Kathleen L. Komar, PhD
Efrain Kristal, PhD
Tamara J.M. Levitz, PhD
David W. MacFadyen, PhD
Sareh Malikdost, PhD
Kirstie M. McClure, PhD
Aamir R. Mufti, PhD
Anjali Prabhu, PhD (Edward W. Said Professor of Comparative Literature)
Todd S. Presner, PhD (Michael and Irene Ross Endowed Professor of Yiddish Studies)
Michael P. Rothberg, PhD (1939 Society Samuel Goetz Professor of Holocaust Studies)
Jennifer A. Sharpe, PhD
Shu-mei Shih, PhD (Ivring and Jean Stone Professor)
Zrinka Stahuljak, PhD

Professors Emeriti
Katherine C. King, PhD
François Lionet, PhD
Kenneth Reinhard, PhD
Ross P. Shideler, PhD
Samuel Weber, PhD

Associate Professors
Elizabeth A. Marchant, PhD
Yasemin Yildiz, PhD

Assistant Professors
Whitney L. Arnold, PhD, in Residence
Stephanie B. Santana, PhD

Adjunct Professor
Romy Sutherland, PhD

Overview
Standing at the forefront of innovative work in literary, theoretical, and cultural studies, comparative literature is one of the most exciting fields in the humanities. As a multifaceted discipline, it promotes linguistic proficiency in more than one language, fosters cultural knowledge of more than one culture, and empowers students with the critical and theoretical tools necessary for them to achieve success in a quickly globalizing world. The UCLA program offers students the opportunity to work with the diverse faculty members of the Department of Comparative Literature as well as with the vast number of faculty members in any language and literature departments.

Interdisciplinary and multilingual in scope, the department is committed to continuing its pioneering work in defining new literary paradigms and fostering new directions for exploration in literary and critical studies from around the globe, with particular focus on lesser-known literatures, cultures, and languages. Its diverse class offerings allow students the unique opportunity to explore and grasp new ventures in the humanities (such as health humanities, global south studies, decolonial studies, and memory studies) as well as continuing pursuits of the relationship between translation and transnationalism, literary theory and emerging media, the future of national literatures in an era of globalization, gender and sexuality studies, East-West cultural encounters, human rights, critical race studies, and experimental approaches to literature and culture.

Focusing on elements that preoccupy literary and critical studies in general, such as genre, narrative, form, period, theme, language, and theory, comparative literature also extends its range to questions that concern other disciplines such as anthropology, art history, film and media studies, gender studies, history, and philosophy. Courses are designed to provide students with both a historical and theoretical understanding of literary, visual, and cultural forms, themes, and movements. Given its focus on interdisciplinary research and pedagogy, comparative literature is the ideal site around which to explore and expand the boundaries of national cultures, modern languages, and literary studies.

Undergraduate Major

Comparative Literature BA

Learning Outcomes
The Comparative Literature major has the following learning outcomes:

- Ability to analyze literary texts
- Ability to situate literary texts in their aesthetic, historical, and cultural contexts
- Knowledge of different methods of analyzing literature
- Understanding of the importance of reading texts in their cultural context
- Ability to read literary texts in two languages
- Ability to write clearly-written, structured analytic essays

Entry to the Major

Transfer Students
Transfer applicants to the Comparative Literature major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one English composition course, two literature survey courses, at least one of which must be world literature, and the equivalent of at least one year of foreign language.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major

Required: (1) Two courses from the Comparative Literature 1, 2, or 4 series (with approval of the director of undergraduate studies, a comparable and appropriate lower-division course in another department may be substituted for one of the courses), (2) completion of the College Writing requirement, and (3) one additional upper-division comparative literature course other than English, to be demonstrated by admission into one upper-division literature course in the original language.

The Major

Required: Ten courses, of which (1) five must be from comparative literature offerings, including Comparative Literature 100 and at least four additional comparative literature courses selected from M101 through 197, (2) three upper-division literature courses using original language texts in the primary language area, and (3) two upper-division literature courses using original language texts in the secondary language area (students may petition the student services adviser to take two upper-division literature courses in translation if their primary literature area is in a language other than English).

Honors Program
The departmental honors program is open to Comparative Literature majors with a 3.5 departmental and a 3.25 overall grade-point average. Eligible interested students should contact the student services adviser to enter the program.

Departmental honors candidates must complete all requirements for the major and an honors research paper (in addition to regular course requirements) in two of the four required upper-division comparative literature courses. These two honors research papers must be completed during the quarter in which the student is enrolled in the course. Candidates must also complete a fourth course in the primary literature area and Comparative Literature 198 with a core faculty member in which they write an independent research paper of approximately 25 pages.

Undergraduate Minor

Comparative Literature Minor

The Comparative Literature minor offers students interested in literature and the humanities the opportunity to gain insight into the critical problems and theories addressed by comparative literature and to apply that knowledge in literature and comparative literature courses.

Admission
To enter the minor students must have fulfilled the College Writing requirement, have completed 40 units with an overall grade-point average of 2.0 or better, have taken at least one year or equivalent of a language other than English, and contact the student services adviser, 3508 Kaplan Hall, 310-825-7650.

The Minor

Required Courses (28 units minimum): (1) Four upper-division comparative literature courses (one course from Comparative Literature 1A through 40D may be substituted), (2) two upper-division courses in one literature (e.g., Arabic, Chinese, English, French, German, Korean, Russian, Spanish) in the original language, and (3) one upper-division course in a second literature in the original language (one level-six foreign language course may be substituted).

Policies
If students complete two upper-division courses in a language other than English, they may petition to take one upper-division course taught in English translation to fulfill the third requirement. A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.
Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Major

Comparative Literature

MA, CPhil, PhD

Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Comparative Literature

Lower-Division Courses

1A. World Literature: Antiquity to Middle Ages. (5) Lecture, three hours; discussion, one hour. Enforced requisite: satisfaction of Entry-Level Writing requirement. Not open for credit to students with credit for course 2AW or 4AW. Study of major texts in world literature, with emphasis on Western civilization. Texts include major works and authors such as Iliad or Odyssey, Greek tragedies, portions of Bible, Virgil, Petronius, St. Augustine, Dante, Marlowe, Shakespeare, Goethe, Herodotus, Homer, Plato, Aristotle, Confucius, Derrida, Nietzsche, and Sartre. Satisfies Writing II requirement. Letter grading.

1B. World Literature: Middle Ages to 17th Century. (5) Lecture, three hours; discussion, one hour. Enforced requisite: satisfaction of Entry-Level Writing requirement. Not open for credit to students with credit for course 2BW or 4BW. Study of world literature, with emphasis on Western civilization as it grapples with its past and with other civilizations. Examination of works such as Dante's Divine Comedy, Cervantes' Don Quixote, Shakespeare's King Lear, and Sor Juana's Mexican poetry. P/NP or letter grading.

1C. World Literature: Age of Enlightenment to 20th Century. (5) Lecture, three hours; discussion, one hour. Enforced requisite: satisfaction of Entry-Level Writing requirement. Not open for credit to students with credit for course 2CW or 4CW. Study of major texts in world literature, with emphasis on Western civilization, with special attention to those that support fairness and inclusiveness. Satisfies Writing II requirement. Letter grading.

2AW. Survey of Literature: Antiquity to Middle Ages. (5) Lecture, two hours; discussion, two hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Not open for credit to students with credit for course 1A or 4AW. Study of selected texts from antiquity to Middle Ages, with emphasis on literary analysis and expository writing. Texts include works by authors such as Dante, Cervantes, Shakespeare, Goethe, M. Shelley, Beowulf, Petronius, Gilgamesh, Sappho, Greek tragedies, Aeneid, Marie de France, Tristan and Isolde, One Thousand and One Nights, Popul Vuh, Satisfies Writing II requirement. Letter grading.

2BW. Survey of Literature: Middle Ages to 17th Century. (5) Lecture, two hours; discussion, two hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Not open for credit to students with credit for course 1B or 4BW. Study of selected texts from Middle Ages to 17th century, with emphasis on literary analysis and expository writing. Texts may include works by authors such as Chaucer, Dante, Marlowe, Shakespeare, Goethe, Calderon, Moliere, and Racine. Satisfies Writing II requirement. Letter grading.

2CW. Survey of Literature: Age of Enlightenment to 20th Century. (5) Lecture, two hours; discussion, two hours. Enforced requisite: English Composition 3. Not open for credit to students with credit for course 1C or 4CW. Study of selected texts from Age of Enlightenment to 20th century, with emphasis on literary analysis and expository writing. Texts may include works by authors such as Voltaire, Diderot, Rousseau, M. Shelley, Strindberg, Swift, Voltaire. Analysis of texts includes focus on structures, processes, and practices that generate inter-group inequities or conflicts as well as those that support fairness and inclusiveness. Satisfies Writing II requirement. Letter grading.

2DW. Survey of Literature: Great Books from World at Large. (5) Lecture, two hours; discussion, two hours. Enforced requisite: English Composition 3. Not open for credit to students with credit for course 1D or 4DW. Study of major literary texts usually overlooked in courses that focus only on canon of Western literature, with emphasis on literary analysis and expository writing. Texts may include works by authors such as Achebe, Can Djeugoue, Xue, Desai, Emecheta, Kincaid, Xue, Desai, Emecheta, Kincaid, Ndebele, Rushdie, and El Saadawi. Analysis of texts includes focus on structures, processes, and practices that generate inter-group inequities or conflicts as well as those that support fairness and inclusiveness. Satisfies Writing II requirement. Letter grading.

10. Virtual Realities: Introduction to Humanities. (5) Lecture, two hours; discussion, two hours. What exactly are humanities? Position of humanities as not science is becoming unclear as human communication, thought, and culture are increasingly tied to technology. Examination of various disciplines within humanities at UCLA to define their place in today's society, contemplate their possible function in tomorrow's world, and determine to whom humanities will and will not cater in future. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

20. Blockchain: Future of Absolutely Everything. (5) Lecture, three hours; discussion, one hour. Interdisciplinary science, social, legal, and scientific workings of blockchain. Critical exploration of ethical, legal, and cultural effects of blockchain's potential to improve human behavior and impact our sense of individuality. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, one hour. Limited to 20 students. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

Upper-Division Courses

100. Introduction to Literary and Critical Theory. (5) Lecture, four hours. Preparation: satisfaction of Entry-Level Writing and College Writing requirements. Requisites: two courses from Comparative Literature 1 or 2 series or English 10 series or Spanish 60 series, etc. Seminar-style introduction to discipline of comparative literature presented through series of texts illustrative of its formation and practice. Letter grading.

103. People on Run: Migrants, Minorities, and Multiculturalism in Europe. (4) Seminar, three hours. Problems of migrants and refugees in ongoing crisis of European Union. Examination of contemporary crisis of European Union from multicultural and political perspectives. Overview of history of European integration since World War II, as well as more focused examination of ways in which culture and migration have come to dominate discussions of future of what had primarily been conceived of as one economic union. Offered in summer only. P/NP or letter grading.

106. Comparative Literature / 339

107. Film on Brain. (4) Seminar, three hours; discussion/analysis of feature film laboratory, one hour. Designed for juniors/seniors. Seminar and analysis of interactions between film language and neuroscience. Exploration of questions such as how do cues on screen prompt emotions in mind; what are viewers’ affective impacts of color; how do brains respond to screen prompt emotions in mind; what are viewers’ affects on cerebral cortex? Two or more film field trips to LA Opera, UCLA Opera, and/or Long Beach Opera to experience opera. P/NP or letter grading.

109. M132. Comparative Media Studies. (4) Lecture, three hours. Exploration of geopolitics of media within tradition of comparative cultural literature. Examination of rhythm, rhymes, flow, wordplay, traditions of signifying, beats, body, and human rights or censorship, reception, and resistance. Possible examination of various national cinemas such as Tunisian, Egyptian, Moroccan, Algerian, and Palestinian. Various national cinemas such as such as Rael and Rai and writing about hip-hop. P/NP or letter grading.

110. M119. Al-Andalus: Literature of Islamic Spain. (4) (Same as Arabic M155.) Lecture, three hours. Study of literature of Islamic Spain to learn about interaction of Arabic and Western and Arabic and Jewish cultures and to recognize Islamic culture as vital force in European life and letters. P/NP or letter grading.

111. M120. Women and Literature in Southeastern Europe. (4) (Same as Central and East European Studies M120.) Lecture, three hours. Designed for upper-division literature majors. Broad interdisciplinary study of avant-garde literature and art, including futurism, Dadaism, Expressionism, Surrealism, new avant-gardes. Works by Marinetti, Boccioni, Picasso, Stein, Malevich, Popova, Maya, Rilke, Brecht, Fritz Lang, Duchamp, Breton, Buñuel, Walter Benjamin, and Hannah Arendt. May be concurrently scheduled with course C252. Undergraduate students may read all required French texts in translation. P/NP or letter grading.

112. M130. Comparative Literary Studies. (4) (Same as Russian M132.) Lecture, three hours. History, form, and function of various media. Grounded in political and commercial experience of Eastern Europe, comparative investigation of media technologies, today’s burgeoning markets, and yesterday’s tragic abuses. Development of media form(s) and content across various times, places, and cultures, with special attention to global media phenomena. Lectures and secondary texts depict issues of displacement, cultural contact, and assimilation. Overview of connections among Portuguese-speaking cultures. May be repeated for credit with topic change. P/NP or letter grading.


114. Contemporary Arab Film and Song. (4) (Same as Arabic M148,) Seminar, three hours. Exploration of conjunctions between contemporary Arab film and song and between literature of commitment (lit-tanz), with possible focus on specific genres such as realist/neorealist Arab film; feminist Arab film or popular Arab film and song; and topics such as nation, gender, and representation or democracy and human rights or censorship, reception, and resistance. Possible examination of various national cinemas such as Tunisian, Egyptian, Moroccan, Algerian, and Palestinian. Various national cinemas such as such as Rael and Rai and writing about hip-hop. P/NP or letter grading.
plastic and verbal arts in comparative study. May be repeated for credit with instructor and/or topic change. May be concurrently scheduled with course C260. Undergraduates may read all works in translation. P/NP or letter grading.

C161. Fiction and History. (4) Seminar, three hours. Designed for upper-division literature majors. Analysis of use of historical events, situations, and characters in literary works and/or historical narratives (Italian humanists, Maquiavel, etc.) to 19th- and 20th-century novels by authors such as Stendhal, Verga, Tomasi di Lampedusa, Carpenter, and Kundera. Use of fictional methods by historians. Emphasis on how aesthetic, ideological, and political factors influence authors’ choice and use of historical events. Concurrently scheduled with course C261. P/NP or letter grading.

M162. Israel Seen through Its Literature. (4) Seminar, three hours. Attempt to impart profound understanding of Israel as seen through the lens of a variety of literary texts—stories, novels, and poems—and reading of them in context of their historical backgrounds. P/NP or letter grading.

C163. Crisis of Consciousness in Modern Literature. (5) Seminar, three hours. Designed for upper-division literature majors. Study of modern European and American works that are concerned both in subject matter and artistic techniques with growing self-consciousness of human beings and their works and focus on works of Kafka, Rilke, Woolf, Sartre, and Stevens. May be concurrently scheduled with course C263. Undergraduates may read all works in translation. P/NP or letter grading.

C164. Modern European Novel. (5) Seminar, three hours. Designed for upper-division literature majors. Study of modern European novel’s development from 19th to 21st century. Use of authors such as Hardy, Strindberg, Lagerkvist, Gide, Proust, Mann, Joyce, Kafka, Woolf, Nabokov, Grass, Christa Wolf, and Derrida to focus on development of themes such as shifting authorial voice, gender conflicts, change versus stability, formal experimentation, and self-consciousness in narrative. May be concurrently scheduled with course C264. Undergraduate students may read all works in translation. Encouraged to read original language whenever possible. P/NP or letter grading.

M165. Holocaust in Literature. (4) Seminar, three hours. Knowledge of Chinese not required. In-depth look at Arab world to narrow focus on Maghreb Jews to modernity, its challenges, and threats. Readings in texts originally written in English or translated from Hebrew, Yiddish, German, Russian, French, and Italian. Analysis of formal aspects of each work. P/NP or letter grading.

M167. Modern Arabic Literature in English. (4) (Same as Arabic M151.) Lecture, three hours. Designed for upper-division literature majors. Study of modern Arabic works and raises wide range of aesthetic and moral questions. P/NP or letter grading.

M166. Modern Jewish Literature in English: Diaspora Literature. (4) (Same as Jewish Studies M151A.) Lecture, three hours. Study of literary responses of Jews to modernity, its challenges, and threats. Readings in texts originally written in English or translated from Hebrew, Yiddish, German, Russian, French, and Italian. Analysis of formal aspects of each work. P/NP or letter grading.

M168. Continental African Authors. (4) (Same as African M151.) Lecture, three hours. Designed for upper-division literature majors. Introduction to a new set of African authors and attempt to discern similarities or differences they may have with major authors such as Achebe, Ngugi, Amadou, Soyinka, etc. P/NP or letter grading.


M171. Chinese Immigrant Literature and Film. (4) (Same as Asian American Studies M130B and Chinese M153.) Lecture, three hours; discussion, one hour. Knowledge of Chinese not required. In-depth look at Chinese immigrant experience by reading literature and watching films. Theories of diaspora, gender, and race to inform thinking and discussion of relevant issues. P/NP or letter grading.

C172. Postmodern Novel. (4) Seminar, three hours. Designed for upper-division literature majors. Study of postmodern novel as it developed out of modernism. Postmodernism defined in three different ways—philosophically, scientifically, and economically. Emphasis on examination of theoretical and literary readings combined to explore three main areas of concern: theories of structuralism and poststructuralism. Readings include authors such as Borges, Beckett, Nabokov, Pynchon, Fuentes, Grass, Böll, and Calvino. Concurrently scheduled with course C272. Undergraduates read all works in translation. P/NP or letter grading.

M175. Race, Gender, Class. (5) (Same as Asian American Studies M165.) Seminar, three hours. Theoretical and literary readings combined to explore three main aspects of social and cultural experience (race, gender, class) as separate but interconnected spheres affecting both minority and majority populations in U.S. Emphasis on reading, writing, and discussion of relevant issues. P/NP or letter grading.


177. Comparative Literature of Francophone and Anglophone Caribbean. (5) Seminar, three hours. Designed for junior/senior literature majors. Study of the relationship of current and historical events in the Caribbean and their literary legacies, emergence of nationalist discourse, postcolonial influences and rivalries, Haitian revolution and independence, and cultural expressions with other disciplines such as arts, music, and literary achievements of African diaspora. P/NP or letter grading.

C178. India Ink: Literature and Culture of Modern South Asia. (5) Seminar, three hours. Survey of significant issues in history of 20th-century Indian literature and culture. Great works of modern Indian culture by such figures as Rabindranath Tagore, Satyajit Ray, Faiz Ahmed Faiz, and U.R. Ananthamurthy, including novels, short stories, poetry, music, and works in cultural criticism and historical scholarship. Central and defining issue for 20th-century Indian culture is experience of British colonial rule and massive cultural and political changes that followed. Emphasis placed on exploration of Indian diaspora. Concurrently scheduled with course C278. P/NP or letter grading.

C179SL. Movement in Art, Philosophy, and Daily Life. (5) (Same as Middle Eastern Studies M179SL.) Seminar, three hours. Concurrently scheduled with courses 1A, 1B, 1C, 1D, 2A, 2B, 2C, or English Composition 3 or 4. In-depth look at new set of African authors and attempt to discern similarities or differences they may have with major authors such as Achebe, Ngugi, Amadou, Soyinka, etc. P/NP or letter grading.

180. Variable Topics: Medical Humanities in Comparative Contexts. (4) Seminar, three hours. Designed for junior/senior literature majors. Study of fixed and changing periods and approaches in medical humanities, giving pride of place to literary and cultural expressions in dialogue with other disciplines such as anthropology, historical linguistics, philosophy, psychology, or sociology. Consult Schedule of Classes for topics to be offered in specific term. May be repeated for credit with topic change. P/NP or letter grading.

180SL. Variable Topics: Medical Humanities in Comparative Contexts and Community-Based Learning. (4) Seminar, three hours; fieldwork, three hours. Exploration of topics in medical humanities with community service component, giving pride of place to literary and cultural expressions with other disciplines such as art, philosophy, or sociology. Ways in which medical humanities can make contributions to Los Angeles community through service learning. Consult Schedule of Classes for topic of specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

186. Graduate Research Seminar: Comparative Literature. (4) Seminar, three hours. Preparation: permission of Department Chair. Writing requirements. Designed for graduate students interested in learning more about research and/or writing honors thesis. Introduction to research in comparative literature, with focus on critical and theoretical methodologies and approaches to analyzing literary texts. Students complete final paper on topic of their own design. P/NP or letter grading.

C187. Reading Across Cultures. (5) Seminar, three hours. What is it we do when we try to understand words, habits, gestures, and beliefs not our own? Do we understand something foreign to us by immersing ourselves in it or by standing apart? Does an understanding of something foreign imply taking universal standpoint? Can we make judgments about beliefs other than our own? Questions of cultural interpretation have long history in both Western and non-Western cultures. Discussion of history of questions about cross-cultural interpretation and comparative interpretation of cultures in both comparative literature and cultural anthropology. Readings from complex and influential works by such writers as Claude Lévi-Strauss, Aimiat Ghoash, James Clifford, Edward Said, Gayatri Spivak, and Erich Auerbach. Concurrently scheduled with course C287. P/NP or letter grading.

188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin prepa- ration of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SB. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced corequisite: course 188SA. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SD. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced corequisite: course 188SA. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in great length through supervisory meetings, papers, or other activities and led by lecture course instructor.
Graduate Courses

200A. Theory of Comparative Literature. (6) Seminar, three hours. Study of theory of literature, with emphasis on genealogy of theoretical problems. S/U or letter grading.

200B. Methodology of Comparative Literature. (6) Seminar, three hours. Requisite: course 200A. Study of methodology of comparative literature, with emphasis on methodology and letter grading.

202. Classical Tradition: Epic, Tragedy, or Comedy. (4) Seminar, three hours. Preparation: reading knowledge of Greek, Latin, or Italian. Analysis of Greek and Roman works and their re-creations in Renaissance and modern periods. Emphasis on how poets build on the work of their predecessors. Reading may range from Iliad or Odyssey to tragedies by Sophocles and Euripides or satires by Aristophanes. S/U or letter grading.

220A. Graduate Seminar. (1 to 4) Seminar, 1 to 4 hours. (Same as Arabic M220A.) Seminar in Graduate Student College Program. Designed as an adjunct to upper-division lecture course. Individual study with lecture or seminar course to explore topics in greater depth through supplemental readings, papers, or projects. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

230. Research Colloquia in Comparative Literature. (2) Seminar, three hours. Requisite: to design and bring together students undertaking supervised research in the seminar setting with one or more faculty members to discuss their own work or related work in discipline. Led by one or more seminar faculty member. May be repeated for credit. P/NP or letter grading.

191. Variable Topics in Comparative Literature. (4) Seminar, three hours. Designed for juniors/seniors. Study and discussion of limited periods and specialized thematic approaches to literary theory, especially in relation to other modes of discourse such as history, philosophy, psychology, linguistics, anthropology, Development of cultivating project. Consists of Schedule of Classes for topics to be offered in specific term. May be repeated for credit with topic change. P/NP or letter grading.

191R. Careers in Humanities. (4) Same as English M191R. Seminar, three hours. Preparation: reading knowledge of one appropriate foreign language. Challenges misrepresentations regarding humanities majors and their practical applications to life after graduation. Exploration of wide range of careers, with hands-on practice in crafting professional narrative. Guest lectures from UCLA professionals and alumni— all experts in career planning and local industry. Students engage with workplace leaders, and simultaneously build professional dossier—on paper or online— in preparation for life after UCLA with a humanities degree. P/NP or letter grading.

197. Individual Studies in Comparative Literature. (2 to 4) Tutorial, three hours. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

198. Honors Research in Comparative Literature. (2 to 4) Tutorial, three hours. Limited to senior comparative literature honors students. Development and completion of honors thesis or comprehensive project on comparative topic selected by student and written under supervision of core faculty member. Students expected to meet regularly with supervisor throughout term. Honors thesis may be used as basis for four-course requirement for Comparative Literature majors. May be repeated once for maximum of 8 units. Individual contract required. Letter grading.

199. Directed Research or Senior Project in Comparative Literature. (2 to 4) Tutorial, three hours. Requisite: course 100. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culumminating paper or project required. May be repeated for credit with consent of chair. Individual contract required. P/NP or letter grading.

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Graduate Courses

200A. Theory of Comparative Literature. (6) Seminar, three hours. Study of theory of literature, with emphasis on genealogy of theoretical problems. S/U or letter grading.

200B. Methodology of Comparative Literature. (6) Seminar, three hours. Requisite: course 200A. Study of methodology of comparative literature, with emphasis on methodology and letter grading.

202. Classical Tradition: Epic, Tragedy, or Comedy. (4) Seminar, three hours. Preparation: reading knowledge of Greek, Latin, or Italian. Analysis of Greek and Roman works and their re-creations in Renaissance and modern periods. Emphasis on how poets build on work of their predecessors. Reading may range from Iliad or Odyssey to tragedies by Sophocles and Euripides or satires by Aristophanes. S/U or letter grading.


C261. Fiction and History. (4) Seminar, three hours. Preparation: reading knowledge of one appropriate foreign language. Study and analysis of function and appearance of such archetypal heroes as Achilles, Ulysses, Prometheus, Oedipus, and Orpheus in literature from antiquity to modern period. S/U or letter grading.

C252. Symbolism and Decadence. (5) Seminar, four hours. Preparation: reading knowledge of French. Study of symbolist and decadent movements in 19th- and 20th-century English and French poetry and prose, including authors such as Baudelaire, Rimbaud, Symbolists, Mallarmé, Verlaine, and Eliot. May be concurrently scheduled with course C152. Graduate students required to prepare papers based on texts read in original languages and to meet as group one additional hour each week. S/U or letter grading.

C253. Post-Symbolist Poetry and Poetics. (5) Seminar, four hours. Study of specific poets and poetic traditions related to them during first half of 20th century. May include poets such as W.B. Yeats, Ezra Pound, T.S. Eliot, Paul Valéry, R.M. Rilke, Gunnar Ekelöf, and Wallace Stevens. May be concurrently scheduled with course C153. Graduate students may meet as group one additional hour each week. S/U or letter grading.

C256. Fantastic Fictions. (4) Seminar, three hours. Prepares students for modern literature, as it becomes conduits or catalysts for revelation. What are ghosts, and what is their function in modern, and popular art? The myth of the alien and the concept of the monstrosity. Readings from James Joyce, John Banville, Henry James, Toni Morrison, Adolfo Bioy Casares, Jūrėnais, Jovita Arquint, and Carlos Fuentes, with films by Alejandro Amenábar, Andrei Tarkovsky, and Kenji Mizoguchi. May be concurrently scheduled with course C166. Graduate students have additional meetings and theoretical readings by Benjamín Pérez, Barthes, Dufour, Ricke, and Caruth. S/U or letter grading.

C250A-250B. Seminar in Experimental Critical Theory. (5) Lecture, three hours. Preparation: reading knowledge of one appropriate foreign language. Examination of nature of cross-cultural, cross-linguistic, and cross-confessional exchange in known medieval worlds of Europe, Asia, and the Americas. Focus on concepts such as hybridization and translation. Drawing on literary, social, cultural, economic, art history, and manuscript studies to trace formation of discourses produced by diverse encounters. Choice of bilingual texts. May be repeated for credit with topic change. S/U or letter grading.

C222. Renaissance Drama. (4) Lecture, three hours. Preparation: reading knowledge of one appropriate foreign language. Broad introduction to subject matter, including key plays in Renaissance and Early Modern literature, with consideration of historical and literary influences on plays. Readings include works of such dramatists as Tasso, Machiavelli, Lope de Vega, Racine, Jonson, Shakespeare. May be concurrently scheduled with course C122. Graduate students required to prepare papers based on texts read in original languages and to meet as group one additional hour each week. S/U or letter grading.


M251. Literatures and Cultures of Maghreb. (4) Seminar: Arabic M251.) Seminar, three hours. Limited to graduate students. Examine of traditionally diverse literatures of Maghreb in their multiple and conflicting contexts of language and gender politics, religious and cultural formations, Pan-Arabism and post-colonial nationhood, Third-Worldism and economic development, modernity and globalization, immigration and citizenship, soccer industry and Rai music, modernity and contemporary methods by historians. Emphasis on how aesthetic, ideological, and political factors influence authors’ choice and use of historical material. May be concurrently scheduled with course C161. Graduate students required to prepare papers based on texts read in original languages. S/U or letter grading.

C253. Crisis of Consciousness in Modern Literature. (5) Seminar, three hours. Preparation: reading knowledge of one appropriate foreign language. Study of modern European and American works that are concerned with the problems of representation and consciousness and with growing self-consciousness of human beings and their society, with focus on works of Kafka, Rilke, Woolf, Sartre, and Stevens. May be concurrently scheduled with course C166. Graduate students required to prepare papers based on texts read in original languages and to meet as group one additional hour each week. S/U or letter grading.

C264. Modern European Novel. (5) Seminar, three hours. Preparation: reading knowledge of at least one appropriate foreign language. Study of modern European novel’s development from 19th to 21st century. Use of authors such as Hardy, Strindberg, Lagerkvist, Goldoni, Houst, Mana, Nabokov, Grass, Christa Wolf, and Enqi to focus on development of themes such as shifting authority, gender conflicts, change versus stability, formal experimentation, and self-consciousness in narrative. May be concur-
277. Caribbean Literature from Negritude to Diaspo-
ra. (4) Seminar, three hours. Historical approach to modern 
Anglophone and Francophone Caribbean lit-
terature, retracing search for cultural identity, begin-
ing with negritude movement’s claim to Africa as ex-
pressed in Aimé Césaire’s classic poem Cahier d’un 
retour au pays natal and ending with consideration of 
dispersion of identities in work of writers and intellec-
tuals who work in diasporic Caribbean 
culture. S/U or letter grading.

C278. India Inc: Literature and Culture of Modern 
South Asia. (5) Seminar, three hours. Survey of signifi-
cant issues in modern Indian literature and culture. 
Great works of modern Indian culture by such 
figures as Rabindranath Tagore, Satyajit Ray, 
Faiz Ahmed Faiz, and U.R. Anantham Murthy, 
including novels, short stories, and other works in 
cultural criticism and historical scholarship. 
Central and defining issue for 20th-century Indian culture 
is experience of British colonial rule and massive cultural 
and material changes that accompanied it. 
Exploration of manner in which literature and culture have 
developed in interaction with powerful social forces, 
such as struggle for national independence from 
British rule and the impact of economic growth. 
S/U or letter grading.

279. Subaltern Studies: Colonial Histories and Culi-
nal Critique. (5) Seminar, three hours. Examination of 
culture of colonial and postcolonial 
cultures in both comparative literature and 
humanities. Focus on literary, philosophical, 
and political issues of modern imperialism and 
development of literary and cultural theory. 
S/U or letter grading.

280. Latin American Literature in Comparative Con-
texts. (4) Seminar, three hours. Preparation: 
reading knowledge of one foreign language. 
In-depth study of one topic of Latin American literature in comparative context. 
May be repeated for credit. S/U or letter 
grading.

M281. Studies in Contemporary Spanish-American 
Literature. (4) (Same as Spanish M280B) Seminar, 
three hours. Preparation: reading knowledge of 
one foreign language. In-depth study of 
Latin American literature in comparative context. 
May be repeated for credit. S/U or letter 
grading.

284. Theories of Translation. (4) Seminar, three hours. 
Preparation: knowledge of foreign language. 
Survey of major theories and problems in 
theory of translation and to its significance for literary studies. 
S/U or letter grading.

285. Translation Workshop. (4) Seminar, three hours. 
Preparation: solid reading knowledge of at least one 
foreign language. Open to qualified undergraduates 
with proper language preparation. Introduction to prin-
ciples of literary translation. Study of 
how principles of translation are 
translated into practice. 
S/U or letter grading.

290. Contemporary Theories of Criticism. (4) 
Seminar, three hours. Preparation: reading knowledge of 
foreign language. In-depth study of 
topical issues in theory of literature for advanced students in 
criticism and literary theory. 
May be repeated for credit. S/U or letter 
grading.

291. Problems in Theory of Literature. (4) Seminar, 
three hours. Preparation: reading knowledge of French 
or German. Requisite: course 290. Study of specific 
topics in theory of literature for advanced students in 
theory of literature. 
May be repeated for credit. S/U or letter 
grading.

292. Theories of Empire. (4) Seminar, three hours. 
Preparation: knowledge of modern imperialism and co-
lonialism and contemporary literature by thinkers such 
as Nietzsche, Marx, and Fredric 
Engels. Examination of primary 
literary and philosophical works 
that address the question of 
empire and colonialism. 
S/U or letter grading.

299. Aesthetics and Literature. (4) Seminar, three 
hours. Preparation: reading knowledge of one 
foreign language. Study of literary theory through 
exploration of approaches to literature by philosophers ground 
worked on analytic tradition. Careful attention to 
theoretical concepts of truth, meaning, expression, representa-
tion, metaphor, fiction, and literature. 
S/U or letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, 
to be arranged. Preparation: apprentice 
personnel employment as teaching assistant, associate, 
assistant professor, or professor. Teaching 
assistantship under active guide-
ance and supervision of regular faculty member re-
ponsible for curriculum and instruction at UCLA. 
May be repeated for credit. S/U grading.

495. Preparation for Teaching Literature and Com-
mentary (required) Seminar, three hours. Preparation: 
problems and methods of presenting literary texts as ex-
emplary materials in teaching of composition. 
Deals with theory and classroom practice and involves 
discussion of teaching counseling and feedback of teaching 
assistants’ performance. 
May not be applied toward MA course requirements. 
S/U grading.

501. Cooperative Program. (2 to 8) Tutorial, to be 
aranged. Preparation: consent of UCLA graduate 
advisor and graduate dean, and host campus instructor.
The major in Computational and Systems Biology is designed primarily for highly motivated undergraduate students interested in interdisciplinary studies in life sciences, behavioral sciences, and engineering and computer sciences. Preparation for the major consists of a broad foundation in basic sciences—chemistry, biology, physics, and mathematics, plus an introduction to computing. The major itself provides students with foundations in mathematical modeling, information processing, and control and system analysis, with an emphasis on quantitative ideas and methodologies. Mathematical and other analytical skills are essential in the major.

Computational and Systems Biology majors have several options for in-depth studies: a coherent integration of courses selected from one of three tracks in bioinformatics, biological data sciences, or dynamical modeling. The major is appropriate preparation for employment or for graduate studies in any of these areas, with emphasis on interdisciplinary activities. It is also appropriate preparation for professional school studies in dentistry, engineering, management, medicine, and public health.

Undergraduate Major

Computational and Systems Biology BS

Computational and Systems Biology majors select a coherent integration of courses from one of three designated tracks: bioinformatics, biological data sciences, or dynamical modeling. The synergy for all tracks is integrative systems, information, and computational systems modeling sciences in biology. The focus is primarily quantitative, as mastery of advanced quantitative skills is essential for multidisciplinary understanding. Each track emphasizes different systems or modalities, and modeling or other computational approaches. Students choose one of the three tracks when they declare the major. Well-justified customized tracks may also be approved by the faculty.

Bioinformatics Track

The bioinformatics track is designed for students interested in computational discovery and management of biological data, primarily genomic, proteomic, or metabolomic data. Bioinformatics emphasizes computational, statistical, and other mathematical approaches for mining, modeling, and analyzing high-throughput biological data and the inherent structure of biological information. Example research problems include finding statistical patterns that reveal genomic or evolutionary or developmental information, studying how regulatory sequences give rise to programs of gene expression, or searching how the genome encodes the capabilities of the human mind.

Biological Data Sciences Track

The biological data sciences track addresses a diverse set of biological questions—ranging from medicine, to genomics, physiology, pharmacology, neuroscience, ecology, and evolution—using recent tools and advances in mathematics and computation—specifically machine learning, statistical data sciences, and informatics. Biological data sciences leverages new and developing courses within computational and systems biology and across UCLA, and greatly aids students who aim to go directly into industry—biotech, pharmaceuticals, and more—as well as computational biology graduate school. The track has a strong focus and deep integration with life sciences.

Dynamical Modeling Track

The dynamical modeling track seeks to provide students a strong foundation in the use of mathematical and computational models for analyzing biological systems. The modeling approaches are based on a varied set of approaches such as partial differential equations, stochastic equations, dynamical systems theory, stability theory and linear algebra, network theory, cellular automata, and numerical methods. Dynamical models are the heart of evolution that underpin all of biology and can be applied to disease spread, tumor growth and treatment, wound healing, cell migration, blood flow, ecology, climate change biology, population genetics, evolutionary theory, game theory, and scaling theory. Models are tailored based on the biological and physical details of the system and can often be simplified or used to build intuition based on the associated timescales and spatial dimensions—from cellular signaling and transcriptional regulation to communication between organs through hormones to consumer-resource interactions among species. The track allows students to develop quantitative approaches to interpret complex biological systems and is a gateway towards careers in biotechnology and academia.

Capstone Major

The Computational and Systems Biology major is a designated capstone major. The capstone experience is a senior-level sequence of two courses integrating the discipline via mathematical modeling, simulation, and active research and report writing. Students are expected to demonstrate critical thinking skills and familiarity with research techniques needed to successfully pursue a project in computational and systems biology, conceive and execute a project on which they engage current methods and theory, communicate original scholarly findings to peers both in oral and written form, and work productively with others as part of a team. The experience culminates with completion of the senior thesis requirement.

Learning Outcomes

The Computational and Systems Biology major has the following learning outcomes:

- Demonstrated familiarity with research techniques needed to successfully pursue a research project
- Demonstrated critical thinking skills in mathematics, computation, and quantitative thinking
- Demonstrated critical thinking skills in life science disciplines and biological applications
- Conception and execution of a research project that engages current methods and theory
- Oral and written communication of original scholarly findings to peers
- Productive participation with others as part of a research team
Entry to the Major

Pre-major
Students entering UCLA directly from high school or first-term transfer students who declare the Computational and Systems Biology pre-major at the time of application are automatically admitted. Current students who were admitted as first-year or transfer students (transfer students must have been admitted under the division of life sciences) may request to declare the pre-major once they have met the following criteria: (1) completed one quarter at UCLA, (2) are in good academic standing, (3) have a minimum cumulative grade-point average (GPA) of 2.0, and (4) have established a pre-major GPA of a minimum of 2.7 by taking at least one pre-major course at UCLA for a letter grade. Requests to declare the pre-major should be sent by e-mail to the program. For more information, see the program website.

All courses taken for the pre-major must be completed with a grade of C or better. Pre-major course Computer Science 32 is required for students following the Biological Data Sciences track, but does not have to be completed prior to applying to the major. Pre-major courses Program in Computing 10B and 10C, or Computer Sciences 32, are required for students following the Bioinformatics track, but do not have to be completed prior to applying to the major.

All students are identified as pre-majors until they satisfy the preparation for the major requirements by achieving (1) a minimum 2.7 GPA in all pre-major courses, and (2) a minimum grade of C in all pre-major courses.

Transfer Students
Transfer applicants to the Computational and Systems Biology major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one year of general chemistry with laboratory for majors, two years of calculus for majors, one year of calculus-based physics, one year of biology with laboratory for majors, and one programming course using C++, Python, or similar language.

Transfer applicants must meet the same academic requirements as current UCLA students, based on all courses transferred from another institution that satisfy pre-major requirements, and must have completed one 12-unit term of residence in regular session at UCLA. Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements
Preparation for the Major
Required: A minimum of 66 to 82 units (depending on the calculus series, computer programming courses, and additional prerequisites for specific concentrations), including Chemistry and Biochemistry 14A, 14B, and 14BL, or 20A, 20B, and 20L; Computer Science 31 or Program in Computing 10A; Life Sciences 7A, 7B, 7C; Life Sciences 30A, 30B, 40, and Computational and Systems Biology M32 or Mathematics M32T, or Mathematics 31A or 31AL, 31B, and Statistics 10; Mathematics 33A, 33B; Physics 1A, 1B, and 1C, or 1AH, 1BH, and 1CH, or Physics 5A, 5B, and 5C.

Students following the bioinformatics track must also complete Computer Science 32 or Program in Computing 10B and 10C.

Students following the biological data sciences track must also complete Computer Science 32. Additional lower-division courses may be requisite to desired track courses.

The Major
The major consists of a methodology core of seven courses (27 units) and a track of five upper-division courses (20 units minimum).

Methodology Core
Required: (1) Computational and Systems Biology M150, M184, 185, (2) one probability course from: Electrical and Computer Engineering 131A, Mathematics 170E, or Statistics 100A, (3) one statistics course from: Biostatistics 100A or Statistics 100B, and (4) two capstone courses from the following options: Computational and Systems Biology M187 and 195, or M187 and 199, or M19A and 198B.

Tracks
Required: A minimum of five courses (20 units minimum) from the tracks listed below. No 199 course may be applied toward any track.

Bioinformatics (at least 20 units): One course selected from Computer Science CM121, CM122, or CM124; two courses selected from Computer Science CM121, CM122, CM124, Ecology and Evolutionary Biology C135, Molecular, Cell, and Developmental Biology CM156, 187AL, Physiological Science 125, or Statistics M254, two life science courses selected from the list below.

Note: Computer Science 32 or Program in Computing 10B and 10C, and Computational and Systems Biology M32 (same as Life Sciences 33B or Mathematics M32T) or Mathematics 32A are completed in the pre-major.

Biological Data Sciences (at least 20 units): Three courses selected from Computer Science CM124 or M226, M146 or Mathematics 156 or Statistics C161, 161, 168, 180 or Mathematics 182, Electrical and Computer Engineering C143A, C147, Mathematics 155, 164, Statistics 101A, or 101C, two life science courses selected from the list below. A maximum of two courses may be from mathematics.

Note: Computer Science 32 is completed in the pre-major.

Dynamical Modeling (at least 20 units): Three courses selected from Computational and Systems Biology M186 (or Computer Science M182), Electrical and Computer Engineering 102, 113, Ecology and Evolutionary Biology C119A, C119B, Mathematics 124 (or 135), 136, 142, 146, 168, or 171; two life science courses selected from the list below. A maximum of two courses may be from mathematics.

Life Science Courses (for all three tracks): any two courses selected from the subareas below. Courses may be chosen from different subareas.

Biochemistry: Chemistry 153A, 153B.
Epidemiology: Epidemiology 100, Microbiology, Immunology, and Molecular Genetics 101, 102, 168, C185A.

Genetics and Molecular Biology: Life Sciences 107, Molecular, Cell, and Developmental Biology 138, M140, 144, 165A (or 100).

Neurosystems: Neuroscience M101A (or Psychology 115), M101B, 102, 205, 260, Physiological Sciences C144, Physics C186, Psychology 119M.

Psychology: Bioengineering C102, Biomatics 206, Ecology and Evolutionary Biology 170 (or Physiological Sciences 166), Physiological Sciences 149.

Honors Program
Students with a grade-point average of 3.5 or better in required major courses and a 3.0 cumulative GPA may apply for admission to the honors program. Honors or highest honors may be granted at the discretion of the faculty sponsor and the faculty committee to students demonstrating exceptional ability on the senior research thesis.

Policies
Preparation for the Major
All courses taken for the Preparation for the Major must be completed with a grade of C or better. Students are allowed to repeat up to two Preparation for the Major courses in which they receive a C– or worse. Students who receive a third grade of C– or worse in Preparation for the Major courses are dismissed from the program.

The Major
Each course in the major must be passed with a grade of C or better.

Undergraduate Minors

Mathematical Biology Minor
The Mathematical Biology minor introduces undergraduate students to an active interdisciplinary research field at UCLA. The minor core examines biological systems in a holistic and quantitative manner by emphasizing systems and integrative principles in biology. Students who complete the minor have sufficient training to apply the knowledge they learn in graduate school or employment of their choice. Students complete a core curriculum and an elective course. The minor consists of lower-division courses basic to the minor, five core courses, and one elective course that provide the needed background in mathematical biology, molecular and cell biology, statistics and probability, and mathematical modeling and simulation methods for biological systems.
Admission
To enter the minor, students must be in good academic standing (2.0 grade-point average or better) and have completed Computer Science 31 or Program in Computing 10A with a grade of C or better. Requests to declare the minor must be sent by e-mail to the program. The e-mail should include full name, UID number, request to declare the minor, and a statement indicating whether the student consents to being added to the departmental Common Collaboration and Learning Environment (CCLE) web page.

The Minor
Required Lower-Division Course (4 units): Mathematics 33A.
Required Upper-Division Courses (22 units): Chemistry and Biochemistry 153A, M230B, Computational and Systems Biology M184, Microbiology, Immunology, and Molecular Genetics 105, and two elective courses selected from Biostatistics 100A, Chemistry and Biochemistry M117, 156, Electrical and Computer Engineering 102, 113, Statistics 100A, 100B.

Policies
A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.
Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Structural Biology Minor
The Structural Biology minor introduces undergraduate students to an active interdisciplinary research field at UCLA. It examines biological systems in a holistic and quantitative manner by emphasizing systems and integrative principles in biology. It consists of lower-division courses basic to the minor, four core courses, and one elective course that provide the needed background in molecular and cell biology, computational and systems engineering, and mathematical modeling and simulation methods for biological systems.

Admission
To enter the minor, students must be in good academic standing (2.0 grade-point average or better) and have completed Computer Science 31 or Program in Computing 10A with a grade of C or better. Requests to declare the minor must be sent by e-mail to the program. The e-mail should include full name, UID number, request to declare the minor, and a statement indicating whether the student consents to being added to the departmental Common Collaboration and Learning Environment (CCLE) web page.

The Minor
Required Lower-Division Courses (8 units): Mathematics 33A, 33B.
Required Upper-Division Courses (24 units): Computational and Systems Biology M184, M186, Mathematics 170A or Electrical and Computer Engineering 131A or Statistics 100A, Molecular, Cell, and Developmental Biology M140 or 144, Statistics 100B, and one elective course selected from Electrical and Computer Engineering 102, Mathematics 134, 136, 171, Molecular, Cell, and Developmental Biology 172, or Physiological Science 125.

Policies
A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.
Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Systems Biology Minor
The Systems Biology minor introduces undergraduate students to an active, interdisciplinary, quantitative biosciences research and teaching field at UCLA. It offers a coherent course plan encompassing basic foundations of the field. Beside broadening student knowledge in systems biology, the minor provides students with enhanced perspective about computational and systems biology methods and applications and better prepares students to make more informed choices about their future directions and careers. The minor consists of lower-division courses basic to the minor, a survey seminar course, four core courses, and one elective course that provide the needed background in molecular and cell biology, computational and systems engineering, and mathematical modeling and simulation methods for biological systems.

Admission
To enter the minor, students must be in good academic standing (2.0 grade-point average or better) and have completed Computer Science 31 or Program in Computing 10A with a grade of C or better. Requests to declare the minor must be sent by e-mail to the program. The e-mail should include full name, UID number, request to declare the minor, and a statement indicating whether the student consents to being added to the departmental Common Collaboration and Learning Environment (CCLE) web page.

The Minor
Required Lower-Division Course (4 units): Mathematics 33A.
Required Upper-Division Courses (22 units): Chemistry and Biochemistry 153A, M230B, Computational and Systems Biology M184, Microbiology, Immunology, and Molecular Genetics 105, and two elective courses selected from Biostatistics 100A, Chemistry and Biochemistry M117, 156, Electrical and Computer Engineering 102, 113, Statistics 100A, 100B.

Policies
A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.
Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Computational and Systems Biology
Lower-Division Courses
10. Preparation for Research in Computational Biology. (3) Lecture, two and one half hours. Provides students with basic understanding of several computational tools used in molecular biology research. Focus on practical application of these tools rather than deep theoretical understanding. Creates more inclusive and accessible experience for learners. Students are introduced to computational tools for carrying out research in computational biology, including basic statistics, Python, R, and UNIX. P/NP or letter grading.
18. Flat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.
M32. Essential Calculus for Mathematical Biologists. (4) (Same as Mathematics M31T and Life Sciences M32T.) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 30A, 30B. Not open to students with credit for Mathematics 31A, 31B, 32A, or 32B. Designed for life sciences students. Methods and results of single and multivariable calculus essential for quantitative training in biology. Limits, differentiation (single and several variables), optimization, integration and methods of integration, Taylor polynomials and applications to approximation, Taylor and other power series, vector valued functions, gradients, and Lagrange multipliers. P/NP or letter grading.
89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities. May be repeated for credit for eligible students. Honors content noted on transcript. P/NP or letter grading.
89HC. Honors Contracts. (1-2) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.
99. Student Research Program. (1-2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.
Upper-Division Courses
M130. Fundamentals of Digital Imaging and Image Processing. (5) (Same as Molecular, Cell, and Developmental Biology M130.) Lecture, three hours; laboratory, two hours. Requisites: Life Sciences 7A, 7B, 7C,
Mathematics 3A, 3B, and 3C, or Mathematics 31A, and Life Sciences 30A, 30B, and 40 or Statistics 13, or 346 / Computational Medicine
(Same as Chemistry M186.) Lecture, four hours; laboratory, three hours. Requisites: Life Sciences 7A, 7B, 7C, Mathematics 31A and 33B, with grades of C or better. Recommended Requisites: Physics 1A, 1B, and 1C, or 5A, 5B, and 5C, with grades of C or better. Students learn how to translate their biological knowledge and intuition into mathematical equations and computer simulations, and how to interpret and glean biological insights from quantitative results and predictions. Review and integration of core mathematical and computational approaches in novel ways. Students gain experience translating and intuition about systems through many examples across range of biological levels, such as predator-prey, disease transmission, cancer initiation, cell migration, neural systems, vascular networks, sleep, drug interactions, gene expression, and more. Students learn how to manipulate data, basics of coding, and how to instantiate their models to and simulated from systems through numerical solutions and simulations. Letter grading.


M178. Quantitative Regulatory Biology and Signal Transduction. (4) (Same as Medicine M185 and Physiological Science M178.) Lecture, three hours; laboratory, one hour. Requisites: Life Sciences 7A, 7B, 7C, 30A, 30B. Introduction to key biological regulatory circuitry and pathway concepts that are critical to understanding how cellular responses are controlled. Letter grading.

M184. Introduction to Computational and Systems Biology. (2) (Same as Bioengineering M184 and Computer Science M184.) Lecture, two hours; outside study, four hours. Enforced requisites: one course from Civil Engineering M20, Computer Science M21, Mechanical and Aerospace Engineering M20, or Program in Computational and Mathematical Sciences M184, and Biological Science M184 or Mathematics 30B or 31B. Survey course designed to introduce students to computational and systems modeling and computation in biology and medicine, providing a foundation for courses on modeling cellular systems, and for computational biology seminars and projects. Letter grading.

M186. Computational Systems Biology: Modeling and Simulation of Biological Systems. (5) (Same as Bioengineering CM186, Computer Science CM186, and Ecology and Evolutionary Biology M178.) Lecture, four hours; laboratory, two hours; discussion, one hour. Requisites: Life Sciences 30A, 30B, Mathematics 32A or M32T, 33A, and 33B; or Mathematics 31A, 31B, 32A or M32T, 33A, and 33B. Dynamic bio-system modeling, and computer simulation methods for studying biological/biomolecular processes and systems at multiple levels of organization. Intermediate linear and nonlinear control system, multicompartamental, epidemiological, pharmacokinetic, and other biochemical modeling methods applied to life sciences problems at molecular, cellular, organ, and population levels. Both theory- and data-driven modeling, with focus on translating biomodeling goals and data into dynamical mathematical models, and implementing them for simulation, quantification, and analysis. Numerical simulation, optimization, and parameter identifiability and search algorithms, with model discrimination and analysis and software exercises in PC laboratory assignments. Letter grading.

M187. Research Communication in Computational and Systems Biology. (4) (Same as Bioengineering CM187 and Computer Science CM187.) Lecture, four hours; outside study, eight hours. Requisites: course M150 or M186 or Computer Science M182; and research experience (course 199, Bioengineering, Computer Science 199, or equivalent). Closely directed, interactive, and real research experience in active quantitative systems biology research laboratory. Direction on how to focus on topics of current interest in scientific community, appropriate to student interests and capabilities. Critiques of oral presentations and written progress reports explain how to proceed with research for results. Major emphasis on effective research reporting, both oral and written. Letter grading.

M199. Directed Research in Computational and Systems Biology. (4–4) Tutorial, eight hours. Limited to juniors/seniors. Supervised internship under guidance of faculty mentor. Further supervision is to be provided by organization for which students are doing internship. Students may be required to meet on regular basis with instructor and provide periodic reports of their experience. Culminating report/project required. May be repeated for credit. Maximum of 4 units of 199 can be applied toward major. Individual contract required. P/NP grading.

M198A-198B. Honors Research in Computational and Systems Biology. (4–4) Tutorial, 12 hours. Maximum of 8 units of courses 198A and 198B may be applied toward major. Individual contract required. 198A. Required: course M150. Limited to Computational and Systems Biology students. Supervised individual research involving extensive reading and development of honors thesis or comprehensive project under guidance of faculty mentor. In Progress grading (credit to be given on completion of course 198B). 198B. Required: course 198A. Continued reading and research culminating in honors thesis under direct supervision of faculty member. Letter grading.

199. Directed Research in Computational and Systems Biology. (2–2) Limited to juniors/seniors. Supervised individual research under guidance of faculty mentor. Culminating report/thesis required. May be repeated for credit. Four units may be applied toward major requirements. Individual contract required. Letter grading.
Overview
As biology advances rapidly in quantitative research methods, both the need and potential for closely associated theoretical research increases. On numerous medical science frontiers—such as genetics, molecular biology, oncology, pharmacology, neuroscience, and physiology—the Department of Computational Medicine contributes both in basic research and the development of specialized software to support investigation and health care. UCLA has one of the few departments in this rapidly evolving field.

The department builds from abstract modeling toward research vital to the advancement of current biomedical frontiers. The doctoral program reflects this in requirements for advanced training in a biomedical research specialty and in the mathematical and computing skills required to contend realistically with the complex phenomena encountered in biology and medicine. The art of quantitative research is developed individually from the first year.

The department welcomes both undergraduate and graduate students in other majors to its courses in mathematical modeling, research computing, and biomedical statistics. Pre-medical majors with mathematical and computational interests can receive early guidance toward an MD/PhD joint degree. The department also offers quantitative research training in the medical curriculum and postgraduate medical programs.

Graduate Majors

Biomathematics MS, PhD
Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Clinical Research MS
Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Data Science in Biomedicine MS
Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Biomathematics

Lower-Division Courses
19. Fiat Lux Freshmen Seminars. (1 Seminar, one hour. Discussion of and critical thinking about topics of current interest in science and technology, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

99. Student Research Program. (1 to 2 Tutorial (supervised research or other scholarly project), two hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses
170A. Introductory Biomathematics for Medical Investigators. (4 Lecture, three hours; discussion, one hour. Intensive elementary statistics course emphasizing design and interpretation of observational studies and experiments/c clinical trials. Statistical topics include study design, descriptive statistics, elementary probability and distributions, confidence intervals and hypothesis testing, sample size and power, linear regression and correlation, analysis of variance, nonparametric statistics. Applications to biomedical literature and design of clinical trials. Letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplementary readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

190HA-190HB. Honors Research in Biomathematics. (4-6) Tutorial, to be arranged. Limited to juniors/seniors. Individual research in some aspect of biomathematics designed to acquaint students in depth with mathematical and computer applications in biology. Must be taken for at least two terms and for total of at least 8 units. Thesis required. P/NP or letter grading.

197. Individual Studies in Biomathematics. (2 to 4) Tutorial, four hours. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

199. Directed Research or Senior Project in Biomathematics. (2 to 6) Tutorial, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Cumulative paper required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

200B. Frontiers and Methods in Mathematical Systems. (4) Lecture/seminar, four hours. Introduction to cutting-edge mathematical biology. Emphasis on critical thinking through critique of research, trains students in scientific writing and presentation skills. Short writing assignments, figure preparation, and slide development. Letter grading.

210. Deterministic Models in Biology. (4) Lecture, three hours; laboratory, three hours. Preparation: knowledge of linear algebra and differential equations. Examination of conditions under which deterministic approaches can be employed and conditions where they may be expected to fail. Topics include compartmental analysis, enzyme kinetics, physiological control systems, and cellular/animal population models. S/U or letter grading.


M203. Stochastic Models in Biology, (4) (Same as Human Genetics M203.) Lecture, four hours. Requirements: Mathematics M207A or equivalent experience in probability. Mathematical description of biological relationships, with particular attention to areas where conditions for deterministic models are inadequate. Examples of stochastic models from genetics, physiology, ecology, and variety of other biological and medical disciplines. S/U or letter grading.

204. Biomedical Data Analysis. (4) Lecture, four hours. Requirements: at least one course in probability or statistics that included basic probability, estimation, and hypothesis testing, and confidence intervals; knowledge of elementary calculus. Familiarity with elementary matrix algebra and previous programming experience are strongly preferred. Modern scientific research and quality and quantity of data have been greatly affected by rapid expansion of statistical computing software. Probability of study of latest methods in applied statistical data analysis and its use arising in laboratory and clinical research. S/U or letter grading.


M207A. Theoretical Genetic Modeling. (4) (Same as Biostatistics M272 and Human Genetics M207A.) Lecture, three hours; discussion, one hour. Requirements: Mathematics 115A, 131A, Statistics 100B. Mathematical models in statistical genetics. Topics include population genetics, genetic epidemiology, gene mapping, design of genetics experiments, DNA sequence analysis, and molecular phylogeny. S/U or letter grading.

M207B. Applied Genetic Modeling. (4) (Same as Biostatistics M237 and Human Genetics M207B.) Lecture, three hours; laboratory, one hour. Requirements: Biostatistics 200B, 202B (may be taken concurrently) or equivalent coursework or consent of instructor. Covers basic genetic concepts (prior knowledge of human genetics not required). Topics include statistical methodology underlying genetic analysis of both quantitative and qualitative complex traits. Laboratory for hands-on computer analysis of genetic data; laboratory reports required. Course complements M207A; students may take either and are encouraged to take both. S/U or letter grading.

209. Mechanisms and Modeling in Bioanalytical As-
says. (4) Lecture, three hours. Preparation: knowledge of basic physical chemistry and ordinary differential equations recommended. Course includes course overview of basic physical mechanisms and mathematical analyses used in common bioanalytical assays. Topics include chromatography, electrophoresis, blotting, DNA sequencing, SELEX, ChIP–sequencing, FACS, FRAP, and FISH. S/U or letter grading.


M211. Mathematical and Statistical Phylogenetics. (4) (Same as Biostatistics M239 and Human Genetics M211.) Lecture, three hours; laboratory, one hour. Preparation: undergraduate course in statistics and probability. Theoretical models in molecular evolution focusing on phylogenetic techniques. Topics include evolutionary tree reconstruction methods, studies of viral evolution, and comparative approaches. Examples provided from evolutionary biology and evolutionary medicine, with unique focus on implications for human disease processes. Laboratory for hands-on computer analysis of sequence data. S/U or letter grading.

M212. Evolutionary Ecology. (4) (Same as Ecology and Evolutionary Biology M232.) Lecture, two and one half hours; discussion. Basic and Evolutionary Ecology M200A or 200B, or equivalent. Concepts and topics include functional concepts of evolutionary ecology, including life history theory, quantitative genetics, and phenotypic evolution, and advances made in field in last decade. May be repeated for credit. Letter grading.

213. Modeling Vascular Networks. (4) Lecture, four hours. Recommended preparation: calculus, differential equations, complex analysis, elementary knowledge of partial differential equations. Introduction to equations that describe fluid dynamics and branching, and hierarchical networks to provide survey of models for structure and flow of vascular systems. Vascular systems are nearly ubiquitous in nature, occurring across animals, plants, and other organisms. Coverage of applications to tumor growth and angiogenesis, sleep, and a variety of other phenomena. S/U or letter grading.

M226. Machine Learning in Bioinformatics. (4) (Same as Bioinformatics M226, Computer Science M226, and Human Genetics M226.) Lecture, four hours; laboratory, one hour. Preparation: Programming and Computer Science 32 or Program in Computing 10C with grade of C- or better. Recommended: one course from Biostatistics 106A, 119A, Civil Engineering 110, Electrical and Computer Engineering 131A, Mathematics 170A, or Statistics 100A. Familiarity with probability, statistics, linear algebra, and algorithms expected. Designed for engineering students as well as students from biological sciences and medical school. Biology has become data-intensive science. Bottle- neck in being able to make sense of biological processes has shifted from data generation to statistical modeling and analysis that can analyze these datasets. Statistical machine learning provides important toolkit in this endeavor. Biological datasets offer new challenges to field of machine learning. Examination of statistical and computational aspects of machine learning techniques and their application to key biological questions. Letter grading.


M234. Applied Bayesian Inference. (4) (Same as Bio-
statistics M234.) Lecture, three hours; laboratory, one hour. Requisites: Biostatistics 200B or another substantial regression course. Bayesian approach to sta-
tistical inference, with emphasis on biomedical applica-
tions. Understanding of mathematical theory. Topics include large sample Bayes inference from likelihoods, noninformative and conjugate priors, empirical Bayes, Bayesian approaches to linear and nonlinear regression, model selection, Bayesian hy-
pothesis testing, and numerical methods. S/U or letter grading.

M243. Condensed Matter Physics of Cells. (4) (Same as Physics M243L.) Seminar, four hours. De-
signation of goals, development of means to understand the condensed matter physics and applications to bio-
physical modeling. S/U or letter grading.

M257. Computational Methods for Biostatistical Re-
search. (4) (Same as Biostatistics M257.) Lecture, three hours; discussion, one hour. Requisites: Bio-
statistics 250A or Statistics 100C. Mathematics 115A. Preparation for quantitative research in statistics and data sciences. Numerical analysis and hands-on computing techniques. Numerical analysis topics include computer arithmetic, solving linear equations, Cholesky factorization, QR factorization, regression computations, eigenvalue problems, iterative solvers, optimization, and design and analysis of statistical simulation experiments. Computing techniques include basics of R programming, reproducible research using R and R Studio, collaboration on research, parallel computing, and cloud computing. No prior knowledge of R assumed. S/U or letter grading.

259. Controversies in Clinical Trials. (2) Lecture; one hour; discussion, one hour. Preparation: completion of professional health sciences or MD degree. Required of all MS in Clinical Research students. Discussion and analysis of eight published and well-known trials with different outcomes and conflicting results. Development of critical ability to evaluate trial design and pitfalls. S/U or letter grading.

M260A-M260B. Methodology in Clinical Research I, II (4-4) (Same as Medicine M260A-M260B.) Lecture, four hours; Recommended preparation: MD, PhD, or dental degree. Requisites: courses 170A, 265A. Course M260A is requisite to M260B. Presentation of principles and practices of major disciplines underlying clinical research, especially as they relate to the conduct of clinical trials. S/U or letter grading.

M260C. Methodology in Clinical Research III. (4) (Same as Medicine M260C.) Lecture, four hours. Recommended preparation: MD, PhD, or dental degree. Presentation of principles and practices of major disciplines underlying clinical research methodology, such as biostatistics, epidemiology, pharmacokinetics. S/U or letter grading.

M261. Responsible Conduct of Research Involving Humans. (2) (Same as Medicine M261.) Lecture, two hours; discussion, two hours. Preparation: completion of one basic course in protection of human research subjects through Collaborative Institutional Training Initiative. Discussion of current issues in responsible conduct of clinical research, including reporting of research, basis for authorship, bias, dual use and conflict of interest. S/U or letter grading.

M262. Communication of Science. (2) (Same as Psy-
chology M263C.) Lecture, homework, discussion, one hour. Presentation of various types of scientific writ-
ings and their good practice. Details of writing specific articles: methods, results, discussion. Writing of re-
view articles, compact writing in genetic search, principles and practice of research on hu-
mans, conflicts of interest, Institutional Review Board (IRB), and related topics. S/U or letter grading.

M266A. Advanced Biostatistics. (4) Lecture, three hours; discussion, one hour. Requisites: course 170A. Proficiency in applied regression analysis, with focus on interpretation of results and performing computation. Primary topics include linear regression, multiple regression, regres-
sion model selection, analysis of variance, logistic re-
gression, and survival analysis. Letter grading.

M266B. Data Analysis Strategies I. (4) Lecture, two hours; discussion, two hours. Requisites: course 266A or MD or PhD degree. Requisite: course 170A. Designed to provide students with hands-on experience developing and testing hypotheses using various types of databases. Topics include developing testable hypothesis, data management, and analysis strategies and written pre-
sentation of findings. Experience with full process of hypothesis generation, operationalization of variables, selection of analysis techniques, and presentation of findings so students are better prepared to complete data analysis, interpretation of results, and written pre-
sentation of their findings (e.g., for master’s thesis and dissertation). Students will provide their own data. Databases provided for use in completing exercises for those without available data. Letter grading.

M267. Applied Regression Analysis in Medical Sci-
ences. (4) Lecture, three hours; laboratory, one hour. Preparation: course 170A. Proficiency in applied regres-
sion analysis, with focus on interpretation of results and performing computation. Primary topics include linear regression, multiple regression, regres-
sion model selection, analysis of variance, logistic re-
gression, and survival analysis. Letter grading.

M270. Optimal Parameter Estimation and Experi-
ment Design for Biomedical Systems. (4) (Same as Bioengineering M269B, Computer Science M269B, and Medicine M270D.) Lecture, four hours; outside study, eight hours. Requisites: course 220 or Bioengi-
neering CM266 or M269A. Estimation methodology and experiment design for fitting dynamic system models to biomedical data. Model discrimination methods. Theory and algorithms for de-
signing optimal experiments for developing and quan-
tifying devices, with special emphasis on sampling schedule design for kinetic models. Exploration of PC software for model building and optimal experiment design via applications in physiology and pharma-
cology. Letter grading.

M271. Statistical Methods in Computational Biologi-
y. (4) (Same as Bioinformatics M272 and Statistics M254.) Lecture, three hours; discussion, one hour. Preparation: elementary probability concepts. Requi-

M272. Statistical Computing. (4) (Same as Bioinfor-
matics M270 and Statistics M272.) Lecture, three hours, outside study, two hours. Preparation: one basic course in probability and statistics M234.) Lecture, three hours; laboratory, one hour. Preparation: elementary probability concepts. Requisit-
ees: Mathematics 115A, Statistics 100C. Introduction to statistical methods developed and widely applied in several branches of computational biology research, including sequence align-
ment, motif discovery, comparative genomics, and bi-
ological networks, with emphasis on understanding of basic statistical concepts and use of statistical infer-
ence to solve biological problems. Letter grading.

M273. Statistical Computing. (4) (Same as Biostatistics M280 and Statistics M230.) Lecture, three hours. Requisites: Mathematics 115A, Statistics 100C. Intro-
duction to theory and design of statistical programs: computational methods for linear and nonlinear regres-
sion, dealing with constraints, robust estimation, and general maximum likelihood methods. Letter grading.

M282. Longitudinal Data. (4) (Same as Biostatistics M236.) Lecture, three hours; laboratory, one hour. Requisite: Biostatistics 200B or another substantial regression course. Analysis of continuous responses for which multivariate normal model may be assumed. Students learn how to think about longitudinal data, plot data, and how to specify mean and variance of longitudinal response. Advanced topics include introductions to clustered, multivariate, and discrete longitudinal data. S/U or letter grading.

M284. Methodology of Clinical Trials. (4) (Same as Biostatistics M238.) Lecture, three hours; discussion, one hour. Requisite: Biostatistics 200B. Introduction to material on design and analysis of clinical trials, including adaptive methods for early and late randomized trials. S/U or letter grading.

205. Introduction to High-Throughput Data Analysis. (4) Seminar, three hours. Requisite: courses M260A, M260B. Introduction to high-throughput data analysis, including DNA microarray technologies and next-generation sequencing technology. Presentation of statistical methods and software for handling complex data produced by experiments using these technologies. Some hands-on training on data analysis provided. S/U or letter grading.

206. Special Topics in Clinical Research. (2 to 6) Seminar, three hours. Requisite: courses M260A, M260B. Advanced study and current topics in clinical research. Discussion of current research and literature in research specialty of faculty member teaching course. Content varies from term to term and may include lectures from visiting scientists. May be repeated for credit with consent of instructor. S/U or letter grading.

596. Directed Individual Study or Research in Biostatistics. (2 to 12) Tutorial, to be arranged. Individual study on topics not yet covered by offerings of department. May be repeated for credit with topic change. S/U or letter grading.

597. Preparation for MS or PhD Comprehensive Examination or PhD Qualifying Examinations. (2 to 6) Tutorial, to be arranged. Individual study. S/U grading.


Data Science in Biomedicine
Graduate Courses

200. Foundations of Data Science. (4) Lecture, four hours; discussion, two hours. Preparation: familiarity with programming and algorithms, probability, statistics, linear algebra. Study offers background in mathematical and engineering foundations that are building blocks of data science. Topics include linear algebra, probability, and statistics. Overview of science software engineering and reproducibility fundamentals including working on a compute cluster, pipeline development, virtual notebooks, version control. Letter grading.

205. Machine Learning Applications in Biomedicine. (4) Lecture, four hours; discussion, two hours. Requisite: course 200 or equivalent. Introduction to machine learning and analysis of biomedical data, with focus on formulating interdisciplinary problems as computational problems and then solving those problems using machine learning techniques and computational interdisciplinarity, research in genetics, fundamentals of machine learning and applications to genetics and health records. Letter grading.

206. Advanced Machine Learning Applications in Biomedicine. (4) Lecture, four hours; discussion, two hours. Requisite: course 200 or equivalent. Statistical models for analysis of biomedical data that captures the structure of the data and accounts for the constraints. Topics include Bayesian models, probabilistic graphical models, deep learning, time series, dynamical systems, stochastic processes, scalable inference (gradient descent, stochastic gradient descent, expectation-maximization, Markov chain Monte Carlo, variational inference), privacy-preserving inference (differentiable privacy, inference over encrypted data), interpretable machine learning, and fairness and bias. Letter grading.

207. Data Science for Medical Imaging. (4) Lecture, four hours; discussion, two hours. Requisite: course 200 or equivalent. Overview of medical image modalities and 3D visualization, classical image processing (histogram analysis and filtering), modern deep learning techniques (convolutional networks), image alignment, and statistical analysis of populations. Letter grading.

208. Recent Research in Machine Learning in Medicine. (4) Lecture, four hours; discussion, two hours. Requisite: course 200 or equivalent. Overview of recent research in machine learning applied to medicine. Covers recent papers utilizing data science approaches to analyze large amounts of medical data. Topics include analysis of medical imaging data, electronic health records, and waveforms. Students receive instruction on how to read recent research papers, and present these papers in class. Letter grading.

209. Recent Research in Data Science in Genomic Medicine. (4) Lecture, four hours; discussion, two hours. Requisite: course 200 or equivalent. Overview of recent research in data science applied to genomic medicine. Covers recent papers that use data science approaches to analyze large amounts of genomic data along with medical data with the goal of improving patient care. Topics include and family genomics, diagnosis rare diseases, estimation and utilization of polygenic risk scores in electronic medical records, and integrating novel types of genomic data into clinical care. Students receive instruction on how to read recent research papers, and present these papers in class. Letter grading.

COMPUTER SCIENCE

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Overview
Computer science is concerned with the design, modeling, analysis, and applications of computer systems. Its study at UCLA provides education at the undergraduate and graduate levels necessary to understand, design, implement, and use the software and hardware of computer systems. The programs offer comprehensive and integrated studies of subjects in computer system architecture, computer networks, distributed computer systems, programming languages and software systems, information and data management, artificial intelligence, computer science theory, computational systems biology and bioinformatics, and computer vision and graphics.

The undergraduate and graduate studies and research projects in the Department of Computer Science are supported by significant computing resources. In addition to the departmental computing facility, there are over a dozen research laboratories specializing in areas such as distributed systems, multimedia computer communications, distributed sensor networks, VLSI systems, embedded computing systems, computer graphics, bioinformatics, and artificial intelligence.

Also, the Cognitive Systems Laboratory is engaged in studying computer systems that emulate or support human reasoning. The Biocybernetics Laboratory is devoted to multidisciplinary research involving the application of engineering and computer science methods to problems in biology and medicine.

Undergraduate Majors

Computer Science and Engineering BS
The Computer Science and Engineering curriculum at UCLA provides students with the education and training necessary to design, implement, test, and utilize the hardware and software of digital computers and digital systems. The curriculum has components spanning both the Computer Science and Electrical and Computer Engineering departments. The curriculum covers all aspects of computer systems from electronic design through logic design, VLSI, VLSI, and VLSI concepts; device utilization, machine language design, implementation and programming, operating system concepts, systems programming, networking fundamentals, and higher-level language skills; and their application. Students are prepared for employment in a wide spectrum of high-technology industries.

The computer science and engineering program is accredited by the Computing Accreditation Commission and the Engineering Accreditation Commission of ABET.

Capstone Major
The Computer Science and Engineering major is a designated capstone major. Computer Science and Engineering students complete a major product design course. Graduates are expected to apply the basic mathematical and scientific concepts that underlie modern computer science and engineering; design a software or digital hardware system, component, or process to meet desired needs within realistic constraints; function productively with others as part of a team; identify, formulate, and solve computer software- and hardware-related engineering problems; and demonstrate effective communication skills.

Learning Outcomes
The Computer Science and Engineering major has the following learning outcomes:
- Application of basic mathematical and scientific concepts that underlie the modern field
- Design of a software or digital hardware system, component, or process to meet desired needs within realistic constraints
- Function productively with others on a team, including those with different specialties within the field
- Identification, formulation, and solution of computer software- and hardware-related engineering problems
- Effective communication

Requirements
Preparation for the Major
Required: Computer Science 1, 31, 32, 33, 35L, M51A; Electrical and Computer Engineering 3; Mathematics 31A, 31B, 32A, 32B, 33A, 33B, 61; Physics 1A, 1B, 1C, and 4AL or 4BL.

The Major
Required: Computer Science 111, 118, 131, M151B, M152A, 180, 181, Electrical and Computer Engineering 100, 102, 115C; one course from Civil and Environmental Engineering 110, Electrical and Computer Engineering 131A, Mathematics 170A, 170E, or Statistics 100A; one capstone design course (Computer Science 152B); a minimum of 4 units and one elective course selected from Electrical and Computer Engineering 101A through M185; a minimum of 12 units and three elective courses selected from Computer Science 111 through CM187, and up to 8 units of Computer Science 188; and 12 units of technical breadth courses selected from an approved list available in the Office of Academic and Student Affairs.

Students who want to deepen their knowledge of electrical engineering are encouraged to select that discipline as their technical breadth area.

For information on UC, school, and general education requirements, see the Samueli school section in College and Schools.

Policies
The Major
Credit is not allowed for both Computer Science 170A and Electrical and Computer Engineering 133A unless at least one of them is applied as part of the technical breadth area. Electrical and Computer Engineering 110, 131A, and CM182 may not satisfy elective credit. A petition may be submitted to consider four units of Computer Science 194 or 199 for an elective. Credit is not guaranteed and subject to vice chair review.

A multiple-listed (M) course offered in another department may be used instead of the same computer science course (e.g., Electrical and Computer Engineering M116C may be taken instead of Computer Science M151B). Credit is applied automatically.

Computer Science BS
The Computer Science curriculum is designed to accommodate students who want professional preparation in computer science but do not necessarily have a strong interest in computer systems hardware. The curriculum consists of components in computer science, a minor or technical support area, and a core of courses from the social sciences, life sciences, and humanities. Within the curriculum, students study subject matter in software engineering, principles of programming languages, data structures, computer architecture, theory of computation and formal languages, operating systems, distributed systems, computer modeling, computer networks, compiler construction, and artificial intelligence. Majors are prepared for employment in a wide range of industrial and business environments.

The computer science program is accredited by the Computing Accreditation Commission of ABET.

Capstone Major
The Computer Science major is a designated capstone major. Students complete either a software engineering or a major product design course. Graduates are expected to apply the basic mathematical and scientific concepts that underlie modern computer science and engineering; design a software or digital hardware system, component, or process to meet desired needs within realistic constraints; function productively with others as part of a team; identify, formulate, and solve computer software- and hardware-related engineering problems; and demonstrate effective communication skills.

Learning Outcomes
The Computer Science major has the following learning outcomes:
- Application of basic mathematical and scientific concepts that underlie the modern field
- Design of a software or digital hardware system, component, or process to meet desired needs within realistic constraints
- Function productively with others on a team, including those with different specialties within the field
- Identification, formulation, and solution of computer software- and hardware-related engineering problems
- Effective communication
Requirements

Preparation for the Major
Required: Computer Science 1, 31, 32, 33, 35L, M51A; Mathematics 31A, 31B, 32A, 32B, 33A, 33B, 61; Physics 1A, 1B, 1C, and 4AL or 4BL.

The Major
Required: Computer Science 111, 118, 131, M151B, M152A, 180, 181; one course from Civil and Environmental Engineering 110, Electrical and Computer Engineering 131A, Mathematics 170A, 170E, or Statistics 100A; one capstone software engineering or design course from Computer Science 130 or 152B; a minimum of 20 units and five elective courses selected from Computer Science 111 through CM187, and up to 8 units of Computer Science 188; a minimum of 12 units and three science and technology courses (not used to satisfy other requirements) that may include 12 units of upper-division computer science courses or 12 units of courses selected from an approved list available in the Office of Academic and Student Affairs; and 12 units of technical breadth courses selected from an approved list available in the Office of Academic and Student Affairs.

For information on UC, school, and general education requirements, see the Samueli school section in College and Schools.

Policies

The Major
Students must take at least one course from Computer Science 130 or 132. Computer Science 130 or 152B may be applied as an elective only if it is not taken as the capstone course.

Credit is not allowed for both Computer Science 170A and Electrical and Computer Engineering 133A unless at least one of them is applied as part of the science and technology requirement or as part of the technical breadth area. A petition may be submitted to consider four units of Computer Science 194 or 199 for an elective. Credit is not guaranteed and subject to vice chair review.

A multiple-listed (M) course offered in another department may be used instead of the same computer science course (e.g., Electrical and Computer Engineering M116C may be taken instead of Computer Science M151B). Credit is applied automatically.

Computer Engineering BS
The undergraduate curriculum provides all computer engineering students with preparation in the mathematical and scientific disciplines that lead to a set of courses that span the fundamentals of the discipline in the major areas of data science and embedded networked systems. These collectively provide an understanding of many inventions of importance to our society, such as the Internet of Things, human-cyber-physical systems, mobile/wearable/implantable systems, robotic systems, and more generally smart systems at all scales in diverse spheres. The design of hardware, software, and algorithmic elements of such systems represents an already dominant and rapidly growing part of the computer engineering profession. Students are encouraged to make use of their computer science and electrical and computer engineering electives and a two-quarter capstone design course to pursue deeper knowledge within one of these areas according to their interests, whether for graduate study or preparation for employment.

Capstone Major
The Computer Engineering major is a designated capstone major that is jointly administered by the Computer Science, and Electrical and Computer Engineering, departments. Undergraduate students complete a design course in which they integrate their knowledge of the discipline and engage in creative design within realistic and professional constraints.

Students apply their knowledge and expertise gained in previous mathematics, science, and engineering coursework. Students identify, formulate, and solve engineering problems and present their projects to the class.

Learning Outcomes
The Computer Engineering major has the following learning outcomes:

- Application of mathematical, scientific, and engineering knowledge
- Design of a software or hardware system, component, or process to meet desired needs within realistic economic, environmental, social, ethical, health, safety, security, reliability, manufacturability, and sustainability constraints
- Function productively on a team with others
- Identification, formulation, and solution of computer engineering problems
- Effective communication

Requirements

Preparation for the Major
Required: Computer Science 1 (or Electrical and Computer Engineering 1), 31, 32, 33, 35L, M51A (or Electrical and Computer Engineering M16); Electrical and Computer Engineering 3; Engineering 96L; Mathematics 31A, 31B, 32A, 32B, 33A, 33B, 61; Physics 1A, 1B, 1C, and 4AL or 4BL.

The Major
Required: Computer Science 111, 118 (or Electrical and Computer Engineering 132B), M151B (or Electrical and Computer Engineering M16C), M152A (or Electrical and Computer Engineering M116L), 180; Electrical and Computer Engineering 100, 102, 113, 115C; one course from Civil and Environmental Engineering 110, Electrical and Computer Engineering 131A, Mathematics 170A, 170E, Statistics 100A; 8 units of computer science and 8 units of electrical and computer engineering upper-division electives; three technical breadth courses (12 units) selected from an approved list available in the Office of Academic and Student Affairs; 8 units capstone design from either Electrical and Computer Engineering 180DA/180DW or 183DA/183DB.

For information on UC, school, and general education requirements, see the Samueli school section in College and Schools.

Undergraduate Minors

Bioinformatics Minor
The Bioinformatics minor introduces undergraduate students to the emerging interdisciplinary field of bioinformatics, an active area of research at UCLA combining elements of the computational sciences with the biological sciences. The minor organizes the many course offerings in different UCLA departments into a coherent course plan providing students with significant training in bioinformatics in addition to the training they obtain from their major. Students who complete the minor will be strong candidates for admission to PhD programs in bioinformatics as well as have the relevant training to obtain jobs in the biotechnology industry.

Students complete a core curriculum and an elective course and are strongly encouraged to participate in undergraduate research as early as possible in one of the many groups offering research opportunities in bioinformatics.

Admission
To enter the minor, students must be (1) in good academic standing (2.0 grade-point average or better), (2) have completed at least two of the lower-division requirements with minimum grades of C, and (3) file a petition through Message Center. Steps to apply are outlined on the Office of Academic and Student Affairs website. Information about the minor and the application are available on the minor website.

The Minor

Required Lower-Division Courses (17 units minimum): Computer Science 32 or Program in Computing 10C, Life Sciences 7A, Mathematics 33A, 61.

Required Upper-Division Courses (18 units minimum): Computer Science 180 (or Mathematics 182), M184; two courses selected from Computer Science CM121, CM122, and CM124, and one course selected from Chemistry and Biochemistry C100, 153B, Civil and Environmental Engineering 110, Computer Science CM121, CM122, CM124, 170A, CM186, CM187, Ecology and Evolutionary Biology C135, Electrical and Computer Engineering 102, 131A, 141, Human Genetics C144, Mathematics 170A, 170E, Microbiology, Immunology, and Molecular Genetics 132, Molecular, Cell, and Developmental Biology 144, 187AL, Physical Science 125, Statistics 100A, 100B.

Students are strongly encouraged to take Computer Science M184 as early as possible to obtain an overview of computational biology.
Policies
Eight units of either Bioinformatics 199 or Computer Science 194 or 199 may be applied as an elective by petition.

If students apply any of Civil and Environmental Engineering 110, Electrical and Computer Engineering 131A, Mathematics 170A, 170E, or Statistics 100A toward major requirements or another minor, then no other course from that set may be applied toward the minor requirements.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

All minor courses must be taken for a letter grade (unless not offered on that grading basis), and students must have a minimum grade of C- in each and an overall C (2.0) grade-point average in all courses taken for the minor. Successful completion of the minor is indicated on the transcript and diploma.

Data Science Engineering Minor
The minor is intended to expose students to the entire data science life cycle from both foundational and application perspectives. The foundational courses provide the engineering skills to collect, cleanse, and store data; analyze and draw inference from data; and take action and make decisions. A wide-ranging list of interdisciplinary courses focuses on various data-science applications using these skills.

Admission
To apply for the minor, students must have an overall grade-point average of 3.0 or better, have completed or be in the process of completing in the present quarter the two lower-division required courses with the grade B- or better, and file a petition through Message Center. Steps to apply are outlined on the Office of Academic and Student Affairs website. Information about the minor and the application are available on the minor website.

The Minor
Required Lower-Division Courses (8 units): Computer Science 32, Mathematics 33A.

Required Upper-Division Courses (12 units minimum): One course from Civil and Engineering 110, Electrical and Computer Engineering 131A, Mathematics 170A, 170E, or Statistics 100A; Computer Science M148 or Electrical and Computer Engineering M148; Computer Science 145 or M146 or Electrical and Computer Engineering M146.

Elective Upper-Division Courses (8 units minimum): Two courses from Computer Science M119, CM121, CM122, CM124, 143, 145 or M146 (if not taken as a required course), 161, 180, 182, Electrical and Computer Engineering 102, 113, 114, M119, 133A, M146 (if not taken as a required course), C147, 183DA and 183DB (both must be taken), Mechanical and Aerospace Engineering C137, 185, Statistics 100B, 115, 170, or C180.

Policies
Variable topics courses may be taken as topics apply.
Transfer credit for any of the above is subject to approval; consult with the undergraduate counselors before enrolling in any courses for the minor.
A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.
Each minor course must be taken for a letter grade, and student must have a minimum grade of C in each and an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Major
Computer Science MS, PhD
Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Concurrent Degree Program
Concurrent degree programs allow students to reduce the number of courses required for two degrees, since some courses may apply to both degrees.

- Computer Science MS/Master of Business Administration
- Bioinformatics

Lower-Division Courses
19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion and of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

99. Student Research Project. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Course
199. Directed Research in Bioinformatics. (2 to 4) Tutorial, six to 12 hours. Limited to juniors/seniors. Supervised individual research under guidance of faculty mentor. Culminating paper required. May be repeated for credit. Individual contract required. Letter grading.

Computer Science
Lower-Division Courses
1. Freshman Computer Science Seminar. (1) Seminar, one hour. Introduction to department resources and principal topics and key ideas in computer science and computer engineering. Students create critical summaries of seminar talks. P/NP grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion and of critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

30. Principles and Practices of Computing. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Designed for students in computer science and related majors who do not have prior programming experience. Precursor course to introductory computer science sequence (courses 31, 32, 33). Teaches students how to use computers as tool for problem solving, creativity, and exploration through design and implementation of computer programs. Key topics are data types including integers, strings, and lists; control structures, including conditionals and loops; and functional decomposition. Letter grading.


33. Introduction to Computer Organization. (5) Lecture, four hours; discussion, two hours; outside study, nine hours. Enforced requisite: course 32. Introductory course on computer architecture, assembly language, and operating systems fundamentals. Number systems, machine language, and assembly language. Procedure calls, stacks, interrupts, and traps. Assemblers, linkers, and loaders. Operating systems concepts: processes and process management, input/output (I/O) programming, memory management, file systems. Letter grading.

35L. Software Construction. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Required: course 31. Fundamentals of tools and environments for software construction projects, particularly open-source platforms used in upper-division computer science courses. Software practice through collaborative student project. Letter grading.


97. Variable Topics in Computer Science. (1 to 4) Lecture, one to four hours; discussion, zero to two hours. Designed for freshmen/sophomores. Variable topics in computer science not covered in regular computer science courses. May be repeated once for credit with topic or instructor change. Letter grading.

112. Modeling Uncertainty in Information Systems. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: course 111. Topics include decision theory, models for analysis of scientific and engineering problems, and decision-making under uncertainty. Letter grading.

117. Computer Networks: Physical Layer. (4) Lecture, two hours; laboratory, two hours; outside study, six hours. Not open to students with credit for course M117L. Introduction to fundamental computer communication concepts underlying the modern networked world, with focus on wireless communications and media access layers of network protocol stack. Systems include wireless LANs (IEEE802.11) and ad hoc wireless and personal area networks such as Bluetooth. Experiments include experimental project based on mobile radio-equipped devices (smart phones, tablets, etc.) as sensor platforms for personal applications such as wireless health, positioning, security, and awareness, as well as experimental laboratory sessions included. Letter grading.

118. Computer Network Fundamentals. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 111. Designed for juniors/seniors. Probability and stochastic process models as applied in computer science. Basic tools include random variable, conditional probability, expectation and higher moments, Bayes theorem, Markov chains. Applications include network traffic analysis, performance. Basic methods include random variate generation, solution of recurrence relations, and Markov chain analysis. Letter grading.

143. Data Management Systems. (4) Lecture, four hours; laboratory, two hours; outside study, six hours. Enforced requisite: course 32 or Program in Computing 10C with grade of C– or better, Mathematics 33A, and one course from Civil Engineering 110, Electrical and Computer Engineering 137A, Mathematics 170E, or Statistics 100A. Design for engineering students as well as students from biological sciences and medical school. Databases of genomic sequence data are among the largest datasets in all of science. Assembling, indexing, and querying such tremendous datasets is computationally challenging yet critical for many areas of biomedical research. Focus on development of scalable algorithms for analysis of genomic sequence data, with additional focus on formulating biologically relevant problems as computational problems using biological knowledge and solving the problems by developing new algorithms. Concurrently scheduled with course C222. Letter grading.

CM124. Machine Learning Applications in Genetics. (4) (Same as Human Genetics CM124.) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: course 32 or Program in Computing 10C with grade of C– or better, Mathematics 33A, and one course from Civil Engineering 110, Electrical and Computer Engineering 137A, Mathematics 170E, or Statistics 100A. Designed for juniors/seniors. Introduction to machine learning and computational methods for analyzing high-throughput biological data, including both single- and multi-omics approaches. The emphasis may vary depending on student interests and tools available. Letter grading.

CM121. Distributed Systems. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 111. Covers fundamental concepts regarding design and implementation of distributed systems. Topics include consensus (e.g., clock synchronization, logical clocks, vector clocks), failure recovery (e.g., snapshotting, primary-backup), consistency models (e.g., linearity, eventual consistency), causally consistent protocols (e.g., Raft), distributed transactions, and lock. Students gain hands-on, practical experience through multiple programming assignments that take students through steps of creating fault-tolerant, shared key/value store. Exploration of how these concepts have manifested in several real-world, large-scale distributed systems used by Internet companies like Google, Facebook, and Amazon. Letter grading.

C137A. Introductory Survey of Data Mining. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 131. Important concepts and theory of data mining including basic concepts from statistics and computer science. Focus on useful techniques to analyze biological data. Focus on formulating interdisciplinary problems as computational problems and then solving those problems using computational techniques from statistics and computer science. Letter grading.

Introduction to Data Mining. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 131. Important concepts and theory of data mining including basic concepts from statistics and computer science. Focus on useful techniques to analyze biological data. Focus on formulating interdisciplinary problems as computational problems and then solving those problems using computational techniques from statistics and computer science. Letter grading.
bioinformatics, e-commerce, environmental studies, financial markets, multimedia data processing, network monitoring, and social service analysis. Letter grading.

M146. Introduction to Machine Learning, (4) (Same as Electrical and Computer Engineering M146.) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: course 32 or Program in Computing 104. Credit/No Credit only. Introduction to machine learning techniques that analyze and evaluate sets of data automatically to discover patterns behind natural language processing, tasks, algorithms for effectively solving these problems, and methods of evaluating their performance. Focus on statistical and neural-network learning algorithms that train on text corpora to automate text analysis. Emphasis on proper design and evaluation of machine learning systems. Letter grading.

162. Natural Language Processing, (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 145 or M146. Recommended requisite: course 174A. See course 35L. Introduction to natural language processing, machine learning, and natural language interfaces. Emphasis on applications in simulating human-like systems. Letter grading.

162L. Natural Language Processing Laboratory, (4) Lecture, four hours; discussion, two hours; outside study, six hours. Concurrency scheduled with course C274C. Letter grading.

163. Computational Linguistics, (4) Lecture, four hours; discussion, two hours; outside study, six hours. Recommended requisite: course 145A or M146A. See course 35L. Introduction to computational linguistics. Emphasis on applications in simulating human-like systems. Letter grading.

164. Introduction to Data Science, (4) (Same as Electrical and Computer Engineering M148.) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: course 31 or Program in Computing 104A, 104B, and 105B, and one course from Civil and Environmental Engineering 110, Electrical and Computer Engineering 113A, 131A, Math 170A, Math 170E, or Statistics 100A. Introduction to breadth of data science. Foundations for analyzing large data sets and selection of common tools for data analysis, and application of tools and models to data gathering and analysis. Topics include statistical foundations, regression, classification, clustering, dimensionality reduction, and machine learning. Letter grading.

165. Handwritten Digit Recognition, (4) Lecture, two hours; discussion, two hours; outside study, six hours. Requisite: course 145 or M146. Recommended prerequisite: course 145A or M146A. See course 35L. Introduction to handwritten digit recognition. Emphasis on applications in simulating human-like systems. Letter grading.

166. Computational Methods for Medical Imaging, (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: course 32 or Program in Computing 140C with grade of C- or better. Mathematics 33A, one course from Civil and Environmental Engineering 110, Electrical and Computer Engineering 113A, Math 170A, 170E, or Statistics 100A. Theory and practice of image acquisition including angiography, computed tomography (CT), and magnetic resonance (MR). Project-based course covers applied topics in medical imaging including image processing, attenuation, and data driven and machine learning methods. Letter grading.


170B. Design of Communication Systems Laboratory, (2 to 4) (Same as Electrical and Computer Engineering M116L.) Laboratory, four hours; eight hours; outside study, two to four hours. Recommended preparation: course M120A. Limited to seniors. Not open to students with credit for course M117. Introduction to analog-signaling aspects of digital systems and data communications through experience in using contemporary test instruments to generate and display signals relevant to relevant laboratory setups. Use of oscilloscopes, pulse and function generators, baseband spectrum analyzers, desktop computers, terminals, modems, PCDs, and workstations. Noise, transmission impairments, waveforms and their spectra, modern and terminal characteristics, and interfaces. Letter grading.

172. Real-Time Three-Dimensional Animation, (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 32' 32. Introduction to handling of geometry, appearance, and motion specifically for real-time virtual environments, both on theoretical and practical levels. Completion of one quality real-time three-dimensional animation by following through from preproduction to production and postproduction. End products expected to be game demonstrations, storytelling/entertainment (use of real-time graphics engines to create cinematic productions). Focus on achieving highest quality productions to qualify and submit products to Student Academy Awards. Students form teams (or individual) to make technical decisions to adapt stories to games. Introduction to interaction concepts, enabling students to create low-latency real-time three-dimension animation on artificial intelligence, enabling them to refine their interactions to create high-latency real-time three-dimensional animation. Letter grading.

174A. Introduction to Computer Graphics, (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 32. Basic principles behind modern two- and three-dimensional computer graphics systems, including complete set of steps that modern graphics pipelines use to create realistic images in real time. How to position and manipu
permutations, semantic security, public-key and private-key encryption, key-agreement, homomorphic encryption, private information retrieval and voting protocols, message authentication, digital signatures, interactive proofs, zero-knowledge proofs, collision-resistant hash functions, commitment protocols, and two-party secure computation with static security. Letter grading.

M184A. Introduction to Computer and Systems Biology. (2) (Same as Bioengineering M184B and Computational and Systems Biology M184A.) Lecture, two hours; outside study, four hours. Enrolled requisites: one corequisite: course M182, Mechanical and Aerospace Engineering M20, or Program in Computing 10A; and Life Sciences 30B or Mathematics 3B or 31B. Survey course designed to introduce students to the field of systems biology. Emphasis on modeling and computation in biology and medicine, providing motivation, flavor, culture, and cutting-edge contributions in computational biosciences and areas of particular interest. Presentations by individual UCLA researchers discussing their active computer and systems biology research interests. Letter grading.

M185. Computer and Systems Biology: Modeling and Simulation of Biological Systems. (5) (Same as Bioengineering CM185, Computational and Systems Biology M185, and Ecology and Evolutionary Biology M175B.) Lecture, two hours and 90 minutes; discussion, one hour; requisites: Life Sciences 30A, 30B, Mathematics 32A or 32T, 33A, or 33B; or Mathematics 31A, 31B, 32A or 32T, 33A, or 33B. Dynamic modeling and computer simulation methods for studying biological/biomedical processes and systems at multiple levels of organization. Intermediate and nonlinear control system, multi-component, epidemiological, pharmacokinetic, and other biomodeling methods applied to life sciences problems at molecular, cellular, organ, and population levels. Both theory and data-driven modeling, with focus on translating biomodeling goals and results into dynamical mathematical models, and implementing them for simulation, quantification, and analysis. Numerical simulation, optimization, and parameter identifiability and search algorithms, with model discrimination and analysis and software exercises in PC laboratory assignments. Concurrently scheduled with course CM256. Letter grading.

CM187. Research and Communication in Computational and Systems Biology. (4) (Same as Bioengineering CM187 and Computational and Systems Biology M187.) Lecture, four hours; outside study, eight hours. Restricted to students majoring in Computational and Systems Biology M150; and research experience (course 199, Bioengineering 199, Computational and Systems Biology 199, or equivalent). Closely directed, interactive, and real research experience in quantitative systems biology research laboratory. Direction on how to focus on topics of current interest in scientific community, appropriate to student interests and capabilities. Critiques of oral presentations and written progress reports explain how to proceed with search for research results. Major emphasis on effective research reporting, both oral and written. Concurrently scheduled with course CM257. Letter grading.

188A. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory or follow-up research, and present progress and results. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced requisite: course 188SB. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory or follow-up research, and present progress and results. Individual contract with faculty mentor required. May not be repeated. Letter grading.

211. Network Protocol and Systems Software Design for Wireless and Mobile Internet. (4) Lecture, four hours; outside study, eight hours. Requisite: course 118. Designed for graduate students. In-depth study of network protocol and systems software design in area of wireless and mobile Internet. Topics include (1) networking fundamentals: design philosophy of TCP/IP, end-to-end arguments, and protocol design principles; (2) mobile networks: MAC standards, packet scheduling, mobile IP, ad hoc routing, and wireless TCP; (3) mobile computing systems software: middleware, file and network services, and security; and (4) topical studies: energy-efficient design, security, location management, and quality of service. Letter grading.


213A. Embedded Systems. (4) (Same as Electrical and Computer Engineering M202A.) Lecture, four hours; outside study, eight hours. Requisite: course 112. Designed for graduate students. Embedded systems hardware and software design. Topics include the theory and design and implementation of embedded systems from real-time operating systems to communication protocols. Letter grading.

213B. Energy-Aware Computing and Cyber-Physical Systems. (4) (Same as Electrical and Computer Engineering M202B.) Lecture, four hours; outside study, eight hours. Designed for graduate students. In-depth study of energy-efficient design and management and cross-layer methods for power and energy consumption in computing and communication at various scales ranging across embedded, mobile, personal, enterprise, and community-level systems. Topics include hardware and software platforms for embedded systems, techniques for modeling and specification of system behavior, software organization, real-time operating system scheduling, real-time communication and packet scheduling, low-power battery and energy-aware system design, timing synchronization, fault tolerance and debugging, and techniques for hardware and software architecture optimization. Letter grading.

Graduate Courses

201. Computer Science Seminar. (2) Seminar, four hours; outside study, two hours. Requisite: admission to graduate program in computer science. Letter grading.

202. Advanced Computer Science Seminar. (4) Seminar, four hours; outside study, eight hours. Preparation: completion of major field examination in computer science. Current computer science research into theory of, analysis and synthesis of, and applications of information processing systems. Each member completes one tutorial assignment of research projects, in form of paper or project required. Letter grading.

205. Health Analytics. (4) Lecture, four hours; outside study, eight hours. Enrolled requisites: courses 31, 189. Recommended: statistics and probability, numerical methods, knowledge in programming languages. Applied data analytics course, with focus on health care applications. How to properly generate and analyze health data and learn best practices in health data collection and validation. Exploration of various machine learning and data analytic tools to help solve healthcare problems. Different machine learning concepts and algorithms, statistical models, and building of data-driven models. Big data analytics and tools for handling structured, unstructured, and semi-structured datasets. Letter grading.

208. Computer Science / 355

214. Big Data Systems. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enrolled requisite: course 111. Modern computing has entered era of big data. Introduction to concepts of state-of-art in modern big data systems. Study of distributed storage and database systems, which provide foundation for other systems. Discussion of systems built for specific kinds of workloads, such as processing of streaming data, relational data, batched data, graph data, as well as machine learning. Letter grading.

215. Internet of Things: Connectivity and Sensing. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enrolled requisite: course 111. Modern computing has entered era of big data. Introduction to concepts of state-of-art Internet of Things (IoT) technologies and their applications. Covers diverse set of IoT and wireless network technologies such as millimeter wave (mmWave), acoustic, radio-frequency identification (RFID), Wi-Fi, long range (LoRa), Bluetooth, global positioning system (GPS) for variety of emerging communication and sensing applications such as 5G, dig-
216. Network Algorithms. (4) Lecture, four hours; outside study, eight hours. Enforced prerequisite: course 211. Introduction to algorithms for routers and servers. Models of network devices and hardware design. Principles for efficient implementation. Lookup algorithms (exact match, prefix lookups, advanced card: life support), fair queuing implementations, crossbar and scalable switches, with examples from well-known networking devices. Advanced topics include traffic measurement and network security. Letter grading.

217A. Internet Architecture and Protocols. (4) Lecture, four hours; outside study, eight hours. Enforced prerequisite: course 118. Focus on mastering current core set of Internet protocols, including IP, core transport protocols, routing protocols, DNS, NTP, and security protocols such as DNSSEC, to understand principles behind design of these protocols, appreciate their design tradeoffs, and learn lessons from their operations. Letter grading.

217B. Advanced Topics in Internet Research. (4) Lecture, four hours; outside study, eight hours. Enforced prerequisite: course 217A. Designed for graduate students. Review of Internet development history and fundamental principles underlying TCP/IP protocol design. Discussion of current Internet research topics, including research results in routing protocols, transport protocols, network measurements, network security protocols, and clean-slate approach to network architecture design. Fundamental issues in network protocol design and implementations. Letter grading.


219. Current Topics in Computer System Modeling Analysis. (4) Lecture, eight hours; outside study, four hours. Review of current literature in area of computer system modeling analysis in which instructor has developed special proficiency as a consequence of research interests. Students report on selected topics. May be repeated for credit with consent of instructor. Letter grading.

CM221. Introduction to Bioinformatics. (4) (Same as Bioinformatics M221, Chemistry CM260A, and Human Genetics M229S.) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: course 32 or Program in Computing 10C with grade of C– or better, and one course from Civil and Environmental Engineering 110, Electrical and Computer Engineering 131A, Mathematics 170A, 170K, Mathematics 170E, or Statistics 100A. Prior knowledge of biology not required. Designed for engineering students as well as students from biological sciences and medical school. Introduction to bioinformatics and methodologies, with emphasis on concepts and inventing new computational and statistical techniques to analyze biological data. Focus on sequence analysis and alignment algorithms. Concurrently scheduled with course CM121. S/U or letter grading.

C222. Algorithms in Genomic Sequences. (4) (Formerly numbered CM222.) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: course 32 or Program in Computing 10C with grade of C– or better, and one course from Civil Engineering 110, Electrical and Computer Engineering 131A, Mathematics 170A, Mathematics 170E, or Statistics 100A. Prior knowledge of biology not required. Designed for engineering students as well as students from biological sciences and medical school. Database of genomic sequences spanning the largest datasets in all of science. Assembling, indexing, and querying such tremendous datasets is computationally challenging yet critical for many areas of biomedical research. Focus on the art of scalable and efficient algorithms for analysis of genomic sequence data, with additional focus on formulating biologically relevant problems as computational problems and then solving these problems by developing new algorithms. Concurrently scheduled with course C122. Letter grading.

CM224. Machine Learning Applications in Genomics. (4) (Same as Biological Chemistry M229S and Human Genetics CM224.) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: course 32 or Program in Computing 10C with grade of C– or better, and one course from Civil Engineering 110, Electrical and Computer Engineering 131A, Mathematics 170A, Mathematics 170E, or Statistics 100A. Designed for engineering students as well as students from biological sciences and medical school. Introduction to computational analysis of genetic variation and computational interdisciplinary research in genetics. Topics include introduction to genomics, scientific techniques in disease, inferring human population history, technologies for obtaining genetic information, and genetic sequencing. Focus on formulating interdisciplinary problems as computational problems and then solving those problems using computational techniques from statistics and computer science. Concurrently scheduled with course CM124. Letter grading.

CM225. Computational Methods in Genomics. (4) (Same as Bioinformatics M225.) Lecture, two and one half hours; discussion, two and one half hours; outside study, seven hours. Introduction to computational approaches in bioinformatics and preparation for computational interdisciplinary research in genetics and genomics. Topics include genome analysis, regulatory genomics, association analysis, analysis study design, isoalted and admixed populations, population substructure, human structural variation, model organisms, and genomic technologies. Computational techniques and methods include those from statistics and computer science. Letter grading.

CM226. Machine Learning in Bioinformatics. (4) (Same as Bioinformatics M226, Biomathematics C226, and Human Genetics M229S.) Lecture, four hours; outside study, eight hours. Enforced prerequisite: course 32 or Program in Computing 10C with grade of C– or better. Recommended: one course from Biostatistics 100A, 110A, Civil Engineering 110, Electrical and Computer Engineering 131A, Mathematics 170A, or Statistics 100A. Familiarity with probability, statistics, linear algebra, and algorithms expected. Designed for engineering students as well as students from biological sciences and medical school. Biology has become data-intensive science. Bottleneck in being able to make sense of biological processes has shifted from analysis of data to statistical models and inference algorithms that can analyze these datasets. Statistical machine learning provides important tools in this endeavor. Biological datasets offer new challenges, as statistical validation of results is important. Examination of statistical and computational aspects of machine learning techniques and their application to key biological questions. Letter grading.

M229S. Seminar: Current Topics in Bioinformatics. (4) (Same as Biological Chemistry M229S and Human Genetics M229S.) Seminar, four hours; outside study, eight hours. Designed for graduate engineering students as well as students from biological sciences and medical school. In-depth investigation of topics in bioinformatics, genomics, and computational genomics and preparation for computational interdisciplinary research in genetics and genomics. Topics include genome analysis, regulatory genomics, classification, clustering, association analysis, isolation and admixed populations, population substructure, human structural variation, model organisms, and genomic technologies. Computational techniques include those from statistics and computer science. May be repeated for credit with topic change. Letter grading.

230. Software Engineering. (4) Lecture, four hours; discussion, two hours. Recommended preparation for undergraduate students; prior software engineering course. Required preparation for graduate students undergraduate-level knowledge of data structures and object-oriented program languages. As software systems become increasingly large and complex, automated software engineering analysis and development tools play an important role in various software engineering tasks, such as design, construction, evolution, and testing and debugging of software systems. Introduction to foundations, techniques, tools, and case studies of automated software engineering technology. Development, extension, and evaluation of mini automated software engineering analysis tool and assessment of how tool fits into software development processes. Introduction to research topics in automated software engineering. S/U or letter grading.

231. Types and Programming Languages. (4) Lecture, four hours; outside study, eight hours. Enforced prerequisite: course 131. Introduction to static type systems and their usage in programming language design and software reliability. Operational semantics, simply-typed lambda calculus, type soundness proofs, types for immutable references, types for exceptions. Parametric polymorphism, first-order type inference, type inference. Types for objects, subtyping, comparing parametric polymorphism and subtyping. Types for modules, parameterized modules. Formal specification and implementation of variety of type systems, as well as readings from recent research literature on modern applications of type systems. Letter grading.

232. Static Program Analysis. (4) Lecture, four hours; outside study, eight hours. Enforced prerequisite: course 132. Introduction to static analysis of object-oriented programs and their usage in software development processes. Type systems, such as Class hierarchy analysis, rapid type analysis, equality-based analysis, subset-based analysis, flow-insensitive and flow-sensitive analysis, context-insensitive and context-sensitive analysis. Examples for each type of static analysis. Efficient data structures for static analysis information such as directed graphs and binary decision diagrams. Flow-directed method for the static analysis of program understanding and debugging. Formal specification and implementation of static type analysis. Letter grading.

233A. Parallel Programming. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 111, 131. Mutual exclusion and resource allocation in distributed systems; primitives for parallel computation; specification of parallelism, interprocess communication and synchronization, atomic actions, binary and multiway rendezvous; synchronous and asynchronous languages: CSP, Ada, Linda, Maie, UC, and others; introduction to parallel program verification. Letter grading.

233B. Verification of Concurrent Programs. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 111, 181. In-depth investigation of topics in automated software engineering. S/U or letter grading.

234. Computer-Aided Verification. (4) Lecture, four hours; outside study, eight hours. Enforced prerequisite: course 181. Introduction to theory and practice of formal methods for design and analysis of concurrent and embedded systems, with focus on algorithmic techniques for checking logical properties of hardware and software systems. Topics include semantic and reactive systems, invariant verification, temporal logic model checking, theory of omega automata, state-space reduction techniques, compositional and hierarchical reasoning. Letter grading.

235. Advanced Operating Systems. (4) Lecture, four hours. Preparation: C or C++ programming experience. Enforced prerequisite: course 111. In-depth investigation of operating systems issues through guided construction of research operating system for PC machines and consideration of recent literature. Memory management and protection, interrupts and traps, processes, interprocess communication, multiprogramming, multithreading, multiprocessors, virtualization, networking, profiling, re- search operating systems. Series of laboratory projects, including extra challenge work. Letter grading.
236. Computer Security. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 111, 118. Basic and research material on computer security. Topics include basic concepts and goals of computer security, common security tools, use of cryptographic protocols for security, security tools (firewalls, virtual private networks, honeypots), virus and worm protection, security assurance and testing, design of secure programs and hardware. Lecture, four hours; discussion, 30 minutes; laboratory, one hour; outside study, seven hours. Requisite: course 143. Multimedia data: alphanumeric, long text, images/pictures, video, and audio. Structure of multimedia systems. Data models. Searching and accessing databases and across Internet by alphanumeric, image, video, and audio content. Querying, visual languages, and command languages. Large-scale web and client-server systems. Searching and ranking algorithms, and query processing techniques on independent data sources. Letter grading.

241B. Pictorial and Database Management System. (4) Lecture, four hours; outside study, eight hours. Requisite: course 143. Data mining: a major topic in databases, and many dimensions such as modularity, extensibility, expressiveness, and scalability. Anomaly detection of three major programming paradigms—functional, object-oriented, and logic programming—by prototyping implementations of languages in each. Analysis of prototypes to shed light on design and structural properties of each language and paradigm and to allow easy comparison against one another. Hands-on experience implementing new abstractions, both as stand-alone languages and as libraries in existing languages. Concurrently scheduled with course C137A. Letter grading.

237A. Prototyping Programming Languages. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 237A. Study of various program- ming languages, from computing history and research literature, that attempt to address problems of software engineering by implementing new languages, natural languages, abstractions, and/or programming environments. Concurrently scheduled with course C137A. Letter grading.

237B. Programming Language Design. (4) Seminar, four hours; discussion, two hours; outside study, six hours. Requisite: course 237A. History of computer compostion of a quantum computer; two postulates that provide interface to quantum mechanics; concepts of quantum circuit and universal gate set; quantum teleportation; superdense coding; no-cloning theorem; rule of fundamental quantum algorithms including Shor’s algorithm, Grover’s algorithm, and quantum approximate optimization algorithm; several quantum programming languages; quantum machine learning; quantum simulators; quantum compilers; quantum error correction; quantum advantage. Students implement several quantum algorithms in multiple languages and run them on both simulators and quantum computer. Letter grading.

239. Current Topics in Computer Science: Program- ming Languages and Systems. (4) Lecture, four hours; outside study, eight hours. Review of current literature in area of computer science programming languages and systems in which instructor has developed special proficiency as consequence of research interests. May be repeated for credit with topic change. Letter grading.

240A. Databases and Knowledge Bases. (4) Lecture, four hours; outside study, eight hours. Requisite: course 143. Theoretical and technological foundation of Intelligent Database Systems, that merge database technology, knowledge-based systems, and advanced programming environments. Rule-based knowledge representation, spatio-temporal reasoning, and logic-based declarative querying/programming are salient features of this new generation of technology. Other topics include object-relational systems and data mining techniques. Letter grading.

240B. Advanced Data and Knowledge Bases. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 143, 240A. Logical models for data and knowledge representations. Rule-based languages and nonmonotonic reasoning. Temporal queries, spatial queries, and uncertainty in deductive databases and object relational databases (ORDBs), Abstract data types and user-defined column functions in ORDBs. Data mining algorithms. Semistructured information. Letter grading.

241B. Pictorial and Database Management System. (4) Lecture, four hours; outside study, eight hours. Requisites: course 143. Multimedia data: alphanumeric, long text, images/pictures, video, and audio. Structure of multimedia systems. Data models. Searching and accessing databases and across Internet by alphanumeric, image, video, and audio content. Querying, visual languages, and command languages. Large-scale web and client-server systems. Searching and ranking algorithms, and query processing techniques on independent data sources. Letter grading.

244A. Distributed Database Systems. (4) Lecture, four hours; outside study, eight hours. File allocation, intelligent directory design, transaction management, deadlock, strong and weak concurrency control, commit protocols, semantic query answering, multi- graduate students. Scale of Web data requires novel partitioning, examples, trade-offs, and design experi- ences. Letter grading.

245. Big Data Analytics. (4) Lecture, four hours; dis- cussion, two hours; outside study, six hours. Requi- site: course 143 or M146 or equivalent. With the current rate at which data is being collected today in almost all fields of human endeavor, there is emerging a need to make sense of this flood of data and extract in- formation from it. Data analytics is a process of automatic discovery of patterns, changes, associations, and anomalies in massive databases, and is highly inter-disciplinary field representing confluence of several disciplines, including database systems, data ware- housing, data mining, machine learning, statistics, al- gorithms, data visualization, and cloud computing. Lecture, three and one half hours. Letter grading.

246. Web Information Management. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 112, 143, 180, 181. Designed for graduate students. Scale of Web data requires novel partitioning, examples, trade-offs, and design experi- ences. Letter grading.

247. Advanced Data Mining. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 145 or M146 or equivalent. Introduction of concepts, algorithms, and techniques of data mining on different types of datasets, covering basic data mining algorithms, advanced topics on text mining, recommender systems, and graph/network mining. Team-based project involving hands-on practic- e of mining useful knowledge from large data sets is required. Letter grading.

249. Current Topics in Data Structures. (4) Lecture, four hours; outside study, eight hours. Review of cur- rent literature in area of data structures in which in- structor has developed special proficiency as conse- quence of research interests. Students report on se- lected topics for credit with consent of instructor. Letter grading.

251A. Advanced Computer Architecture. (4) Lec- ture, four hours; outside study, eight hours. Requisites: course M151B. Recommended: course 111. Design and implementation of computer systems and technologies for next generation computing. Team project involving hands-on practic- e of mining useful knowledge from large data sets is required. Letter grading.

251B. Parallel Computer Architectures. (4) Lecture, four hours; outside study, eight hours. Requisite: course M151B. Recommended: course 251A. SIMD and MIMD systems, symmetric multiprocessors, distrib- ute-shared memory machines, multi-core systems, multicore chips, clusters, interconnection networks, host-network interfaces, switching element design, communication primitives, cache coherency, memory consistency models, synchronization primi- tives, state-of-art design examples. Letter grading.

252A. Arithmetic Algorithms and Processors. (4) Lecture, four hours; outside study, eight hours. Requir- e: course M151B. Number system representation, re- dundant, signed-digit, and residue. Types of algo- rithms and implementations. Complexity measures. Fast algorithms and implementations for two-operan- d multiplication, addition, and logic circuits. Letter grading.

256A. Advanced Scalable Architectures. (4) Lecture, four hours; outside study, eight hours. Requisite: course M151B. Recommended: course 251A. Scalable and re- dundant, signed-digit, and residue. Types of algo- rithms and implementations. Complexity measures. Fast algorithms and implementations for two-operan- d multiplication, addition, and logic circuits. Letter grading.

258A. Design of VLSI Circuits and Systems. (4) (Same as Electrical and Computer Engineering M216A) Lecture, four hours; discussion, two hours; laboratory, four hours; outside study, two hours. Requisites: courses M145 or M146 or equivalent. Introduction to the design and implementation of VLSI circuits and systems. Design and use of VLSI design tools. Letter grading.

258M. LSI in Computer System Design. (4) (Same as Electrical and Computer Engineering M216C) Lecture, four hours; laboratory, four hours; outside study, four hours. Requisite: course M258A. LSI VLSI design and application in computer systems. In-depth studies of VLSI architectures and VLSI design tools. Letter grading.

258S. Physical Design Automation of VLSI Systems. (4) Lecture, four hours; outside study, eight hours. De- tailed study of various physical design automation problems of VLSI circuits, including logic partitioning, floor planning, placement, routing, timing analysis, and switchbox routing, planar routing and via minimization, compaction and performance-driven layout. Discus- sion of applications of number of important optimization techniques, such as network flows, Steiner trees, simulated annealing, and generic algorithms. Letter grading.

255G. Logic Synthesis of Digital Systems. (4) Lecture, four hours; outside study, eight hours. Requir- e: courses M51A, 180. Detailed study of various problems in logic-synthesis of VLSI digital systems, including two-level Boolean network optimization, Boolean minimization, technology mapping for standard cell designs and field-programmable gate array (FPGA) designs; retina for sequential circuits; and applications of binary decision diagrams (BDDs). Letter grading.

258H. Analysis and Design of High-Speed VLSI Interconnects. (4) Lecture, four hours; outside study, eight hours. Requisites: courses M258A, 258F. Deta- iled study of various problems in analysis and design of high-speed (BO) interconnections on both integrated circuit (IC) and packing levels, including interconnect capacitance and resistance, lossless and lossy trans- mission lines, cross-talk and power distribution noise, dynamic and static timing analysis, technology models, intercon- nect topology and geometry optimization, and clocking for high-speed systems. Letter grading.
260B. Algorithmic Machine Learning. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: course 146. Introductory algorithm course. Students report on selected topics. Topics include: optimization, machine learning, reinforcement learning, deep learning, and generative adversarial networks. Letter grading.

260C. Deep Learning. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: course 180, 260. Open to students with credit for Electrical and Computer Engineering 147 or 224T. Study of basics of deep neural networks and their applications, including but not limited to computer vision, natural language processing, and graph mining. Covers topics including representation of deep learning, how to train neural network (optimization), architecture designs for various tasks, and other advanced topics. By course end, students are expected to be familiar with deep learning and to apply deep learning algorithms to various tasks. Letter grading.

260D. Large-Scale Machine Learning. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course M116. To alleviate costs and improve robustness and generalization performance of modern machine learning models, it becomes crucial to develop methods with strong theoretical guarantees to warrant efficient, accurate, and robust learning. Lecture topics include statistical art research to improve efficiency, robustness, and scalability of machine learning algorithms on large data. Topics include advanced optimization, variance reduction, compressed sensing, federated learning, data summarization, robust learning, neural network pruning, neural architecture search, neural network quantization. Letter grading.

260R. Reinforcement Learning. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Fundamentals and advanced topics of reinforcement learning (RL), computational learning approach where agent tries to maximize total amount of reward it receives while interacting with complex and uncertain environments. Includes introduction of Markov decision processes, model-free RL and model-based RL methods, policy optimization, RL distributed system design, and applications of RL in various domains such as AlphaGo, traffic simulation, autonomous driving, and other machine automation applications. Advanced topics of RL such as multi-agent RL, human-in-the-loop method, and imitation learning. Letter grading.


262A. Learning and Reasoning with Bayesian Networks. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 112 or Electrical and Computer Engineering 131A. Review of several formalisms for representing and managing uncertainty in reasoning systems; presentation of comprehensive description of Bayesian inference using belief networks representation. Letter grading.


262Z. Current Topics in Cognitive Systems. (4) Lecture, four hours; outside study, eight hours. Requisite: course 262A. Additional requisites for each offering announced in advance by department. Theory and implementation of systems that emulate or support human reasoning. Current literature and individual studies in artificial intelligence, knowledge-based systems, expert systems, computational psychology, and heuristic programming theory. May be repeated for credit with topic change. Letter grading.

263. Natural Language Processing. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Natural language processing (NLP) enables computers to understand and process human language. NLP techniques have been widely used in many applications, including search engines, machine translation, question answering, machine summarization, robust learning, neural network pruning, neural architecture search, neural network quantization. Letter grading.

264A. Automated Reasoning: Theory and Applications. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 130 or 131. Introduction to automated reasoning by experience, role of episodic memory organization, pattern recognition, speech, bioinformatics, data mining. Topics include Markov chain Monte Carlo computing, sequential Monte Carlo methods, belief propagation, probabilistic graphical models. Letter grading.


267A. Probabilistic Programming and Relational Learning. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Introduction to computational models of probability and statistical models of relational data. Study of relational representations such as probabilistic databases, relational graphical models, and Markov logic networks, as well as various probabilistic programming languages. Covers their syntax and semantics, probabilistic inference problems, parameter, and structure learning algorithms, and theoretical properties of representation and inference. Emphasis on formalization to formalize and reason about complex statistical assumptions and encode knowledge in machine learning models. Survey of key applications in natural language processing, graph mining, computer vision, and computational biology. Letter grading.

268. Machine Perception. (4) Same as Electrical and Computer Engineering 260B.) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: for graduate students only. Basic aspects of processing visual and other sensory information. Unified treatment of early vision in man and machine. Integration of symbolic and iconic representation in the processing of images. Focus on computing the multimodal sensory information by neural-net architectures. Letter grading.

268S. Seminar: Computational Neuroscience. (2) Seminar, two hours; outside study, four hours. Discussion of students undertaking thesis research. Discussion of advanced topics and current research in computational neuroscience. Neural networks and connectionism as paradigm for parallel and concurrent computation in application to problems of perception, vision, multimodal sensory integration, and robotics. May be repeated for credit. S/U grading.

269. Seminar: Current Topics in Artificial Intelligence. (4) Seminar, to be arranged. Review of current literature and research practicum in area of artificial intelligence in which instructor has developed special proficiency as consequence of research interests. Students report on selected topics. May be repeated for credit with topic change. Letter grading.

274C. Computer Animation. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 174A. Introduction to computer graphics, illumination, and shading; character modeling, forward and inverse kinematics, forward and inverse dynamics, motion capture animation techniques, physics-based animation of particles and fluids, computer vision and cinematography currently scheduled with course C174C. Letter grading.
275. Artificial Life for Computer Graphics and Vision. (4) Lecture, four hours; outside study, eight hours. Enforced requisite: course 174A. Recommended: knowledge of programming concepts from artificial life, emerging discipline that spans computational and biological sciences, can play in construction of advanced computer graphics and vision models for virtual reality, animation, interactive games, and digital cinema. Use of artificial life in medical image analysis, etc. Focus on comprehensive models that can realistically emulate variety of living things, from simple organisms to higher-order systems. Letter grading.

M276A. Pattern Recognition and Machine Learning. (4) (Same as Statistics M231A.) Lecture, three hours; discussion, one hour. Designed for graduate students. Fundamental concepts and algorithms for pattern recognition and machine learning that are used in computer vision, image processing, speech recognition, data mining, statistics, and computational biology. Bayesian decision theory, parametric and nonparametric learning, clustering, complexity (VC-dimension, MLD, AIC), PCA/ICA/ICA, MDS, SVM, boosting, S/U or letter grading.


280AP. Approximation Algorithms. (4) Lecture, four hours; outside study, eight hours. Requisite: course 180. In-depth background in discrete mathematics helpful. Theoretically sound techniques for dealing with NP-hard problems. Inability to solve these problems efficiently means algorithmic techniques are based on approximation—finding solutions that are near to best possible in sufficient running time. Coverage of approximation techniques for number of different problems, emphasizing techniques that include primal-dual method, linear program rounding, greedy algorithms, and local search. Letter grading.

281A. Computability and Complexity. (4) Lecture, four hours; outside study, eight hours. Requisite: course 189. Course 180 is strongly recommended. Confrontation of study to demonstrate in treatment and theory of computing, with emphasis on regular sets of strings, Turing-recognizable (recursively enumerable) sets, closure properties, machine characterizations, nondeterminism, decidability, unsolvable problems, easy and hard problems, PTIME/NPTIME. Letter grading.

M282A. Cryptography. (4) (Same as Mathematics M209A.) Lecture, four hours; outside study, eight hours. Introduction to theory of cryptography, stressing rigorous definitions and proofs of security. Topics include notions of hardness, one-way functions, hard-core bits, pseudorandom generation, pseudorandom functions and permutations, semantic security, public-key and private-key encryption, secret-sharing, message authentication, digital signatures, zero-knowledge proofs, commitment schemes, collision-resistant hash functions, commitment protocols, key-agreement, contract signing, and two-party secure computation with static security. Letter grading.

M282B. Cryptographic Protocols. (4) (Same as Mathematics M209B.) Lecture, four hours; outside study, eight hours. Requisite: course M282A. Consideration of cryptographic protocol design and analysis. Topics include noninteractive zero-knowledge proofs; zero-knowledge arguments; commitments; non-black-box zero-knowledge; IP-PSpace proof, stronger notions of security for public-key cryptography in chosen-ciphertext security; secure multiparty computation; dealing with dynamic adversary; nonmalleability and composability of secure protocols; software protection; threshold cryptography; identity-based cryptography; private information retrieval; secure memory management; attacks; voting protocols; identification protocols; digital cash schemes; lower bounds on use of cryptographic assumptions, how many bits of communication are needed to evaluate function f, making it impossible for any one party to compute f in isolation. Communication complexity theory studies how many bits of communication are needed to evaluate f. Pioneered in 1979 by Turing award winner Andrew Yao, communication complexity has become central area of theoretical computer science with deep open questions, beautiful mathematics, and vast array of applications. Letter grading.

285C. Communication Complexity. (4) Lecture, four hours; outside study, eight hours. Limited to graduate students. Course 280 is strongly recommended. Introduction to communication complexity with coverage of fundamentals, key classic theorems, and current research directions. Consider function f whose ar-guments x and y are held by separate parties, several parties, making it impossible for any one party to compute f in isolation. Communication complexity theory studies how many bits of communication are needed to evaluate f. Pioneered in 1979 by Turing award winner Andrew Yao, communication complexity has become central area of theoretical computer science with deep open questions, beautiful mathematics, and vast array of applications. Letter grading.

289A. Advanced Modeling Methodology for Dynamic Biomedical Systems. (4) (Same as Bioengineering M296A and Medicine M270C.) Lecture, four hours; outside study, eight hours. Basic concepts and design techniques for randomized algorithms, such as probability theory, Markov chains, and probabilistic model checking. Applications to randomized algorithms in data structures, graph theory, computational geometry, number theory, and parallel and distributed systems. Letter grading.

290. Current Topics in Computer Theory: Complexity Theory. (4) Lecture, four hours; outside study, eight hours. Review of current literature in area of computer theory in which instructor has developed special proficiency as consequence of research interests. Students report on selected topics. Letter grading.

290A. Current Topics in Computer Theory: Online Algorithms. (4) Lecture, four hours; outside study, eight hours. Requisite: course 180. Introduction to decision making under uncertainty and competitive analysis. Review of current research in online algorithms for problems arising in many areas, such as data and memory management, searching and navigating in unknown terrains, and server systems. Letter grading.

299P. Current Topics in Computer Theory. (4) Lecture, four hours; outside study, eight hours. Review of current literature in area of computer theory in which instructor has developed special proficiency as consequence of research interests. Students report on selected topics. Letter grading.

299Q. Current Topics in Computer Theory: Randomized Algorithms. (4) Lecture, four hours; outside study, eight hours. Basic concepts and design techniques for randomized algorithms, such as probability theory, Markov chains, and probabilistic model checking. Applications to randomized algorithms in data structures, graph theory, computational geometry, number theory, and parallel and distributed systems. Letter grading.

299S. Current Topics in Computer Theory. (4) Lecture, four hours; outside study, eight hours. Review of current literature in area of computer theory in which instructor has developed special proficiency as consequence of research interests. Students report on selected topics. Letter grading.

M296A. Advanced Modeling Methodology for Dynamic Biomedical Systems. (4) (Same as Bioengineering M296A and Medicine M270C.) Lecture, four hours; outside study, eight hours. Basic concepts and design techniques for randomized algorithms, such as probability theory, Markov chains, and probabilistic model checking. Applications to randomized algorithms in data structures, graph theory, computational geometry, number theory, and parallel and distributed systems. Letter grading.
namic system models to biomedical data. Model dis-
crimination methods. Theory and algorithms for de-
signing optimal experiments for developing and quan-
tifying models, with special focus on optimal sampling
schedule design for kinetic models. Exploration of PC
software for model building and optimal experiment
design via applications in physiology and pharma-
cology. Letter grading.

M296D. Introduction to Computational Cardiology.
(4) (Same as Bioengineering M296C and Medicine M270E.)
Lecture, four hours; outside study, eight hours. Requisite:
course M296B. Research techniques and experience on
special topics involving models, modeling
methods, and model/computing in biological and
medical sciences. Review and critique of literature.
Research problem searching and formulation.
Approaches to solutions. Individual MS- and PhD-level
project training. Letter grading.

M296D. Advanced Topics and Research in Biome-
cial Systems Modeling and Computing. (4) (Same as
Bioengineering M296C and Medicine M270E.)
Lecture, four hours; outside study, eight hours. Requisite:
course M296B. Research techniques and experience on
special topics involving models, modeling
methods, and model/computing in biological and
medical sciences. Review and critique of literature.
Research problem searching and formulation.
Approaches to solutions. Individual MS- and PhD-level
project training. Letter grading.

97C. Preparation for PhD Oral Qualifying Examina-
tion. (2 to 16) Tutorial, to be arranged. Limited to
graduate computer science students. Preparation for
oral qualifying examination, including preliminary re-

98. Research for and Preparation of MS Thesis. (2
to 12) Tutorial, to be arranged. Limited to graduate
computer science students. Supervised independent
research for MS candidates, including thesis pro-
spects. S/U grading.

99. Research for and Preparation of PhD Disserta-
tion. (2 to 16) Tutorial, to be arranged. Limited to
graduate computer science students. Petition forms
to request enrollment may be obtained from assistant
dean, Graduate Studies. S/U grading.

CONSERVATION OF CULTURAL HERITAGE

Interdepartmental Program
College of Letters and Science
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Los Angeles, CA 90095-1510

Conservation of Cultural Heritage
310-825-9407

E-mail contact
Glenn Wharton, PhD, Chair

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Lothar von Falkenhauen, PhD (Art History)
Glenn Wharton, PhD (Art History)

Overview

The UCLA/Getty Conservation interdepartmen-
tal program provides an excellent platform for edu-
cation and research in the conservation of materi-
al culture. It supports discovery and in-
ovation through research that transcends the
boundaries of traditional disciplines. It uniquely
trains cultural property professionals in the best
practices and methods of cultural heritage con-
servation through various pedagogical ap-
proaches including, but not limited to, core
learning, independent research, and
laboratory experience in museums and in
the field. Finally, it positively impacts the com-
203, AN. 8000.


culture and policy of conservation and sustain-
the next generation of conservation pro-
essionals and leaders with strong research,
theoretical, and applied qualitative and quanti-
tative skills; rigorous training in conservation
theory, praxis, ethics, policy, and research;
substantive research training in a specific do-
main of application in conservation; and experi-
mental learning and mentoring in communica-
tion, scientific writing skills, and the ability to
work in multidisciplinary teams.

The objectives of the program are to provide
students with a solid educational base and
practical training in the conservation of both ar-
chaological and ethnographic materials, as
well as an appreciation of the often complex
issues related to significance, access, and use of
these materials that can be very different from
the criteria for conservation of fine art or
historical materials. The special focus of the
program and its interdisciplinary curriculum
serves the archaeological, scientific, native,
and cultural minority communities alike and of-
fers a nexus at the boundaries of conservation,
archeology, ethnography, the natural sciences,
and engineering.

The partnership between UCLA and the Getty
in establishing the program ensures that both a
major research university and an institution with
a principal mandate for conservation of world
heritage are working to create rich and
vibrant conservation training opportunities. The
program helps students develop working rela-
tionships with a wide array of colleagues in the
Getty Conservation Institute, the J. Paul Getty
Museum, other local museums and cultural or-
ganizations, and different departments and
programs at UCLA.

Graduate Majors

Conservation of Cultural Heritage MA

Requirements

Official, specific degree requirements are de-
tailed in program requirements for UCLA
graduate degrees, available at the Graduate
Education website. In many cases, more de-
tailed guidelines may be outlined in announce-
ments, other publications, and websites of the
schools, departments, and programs.
Conservation of Cultural Heritage

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members and graduate students under the expertise and illuminating many paths of discovery at UCLA. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in a minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

C120. Field Methods in Archaeological Conservation: Readiness, Response, and Recovery. (4) Formerly numbered Conservation of Archaeological and Ethnographic Materials C120.) Laboratory, four hours. Overview of risks (direct and indirect) and materials vulnerability of in situ cultural heritage and movable archaeological materials in emergency situations (rescue excavations, disasters, conflicts), with emphasis on readiness, first aid response, and recovery. Readiness focuses on preparedness and preventive measures, including reburials, shelters, rescue excavations, and documentation as well as developing inventories and awareness campaigns. First aid response covers development of on-site emergency risk assessments to evaluate damage and putting triage theory into practice, salvage rescue operations, emergency temporary in situ stabilization and protection (using locally available materials), and training. Recovery is based on documentation, lifting methods, handling, transportation, and storage. Emphasis on finding practical solutions to prevent and mitigate damage and to recover and safeguard archaeological artifacts. Concurrently scheduled with course C220. Letter grading.

C142. Managing Collections for Museums, Libraries, and Archives. (4) Formerly numbered Conservation of Archaeological and Ethnographic Materials C142.) Lecture, two hours; activity, two hours. How conservators work together with curators, collections managers, mount makers, designers, and registrars to permit collections to be both accessed and preserved. Concurrently scheduled with course C224. Letter grading.

Graduate Courses


211. Science Fundamentals in Conservation of Materials. (4) Formerly numbered Conservation of Archaeological and Ethnographic Materials 211.) Lecture, three hours. Introduction to important scientific parameters in conservation of materials that are of great importance for both fundamental science and practical applications. Understanding of intrinsic properties of materials, mechanisms of deterioration, and conservation treatments. General chemistry, physics, and physical chemistry (ionic, electronic, and photonics technology and practical skills on conservation photo-documentation, analytical (forensics) photography, and advanced new imaging technologies. Letter grading.

M215. Cultural Materials Science I: Analytical Imaging and Documentation in Conservation of Materials. (4) Formerly numbered Conservation of Archaeological and Ethnographic Materials M215.) Lecture, two hours; laboratory, two hours. Basic and advanced techniques in digital photographic imaging (e.g., digital microscopy, digital radiography, and scientific imaging) to determine and document condition (defects) and technological features of archaeological and ethnographic materials. Development of basic theoretical knowledge on imaging and photonics technology and practical skills on conservation photo-documentation, analytical (forensics) photography, and advanced new imaging technologies. Letter grading.


C220. Field Methods in Archaeological Conservation: Readiness, Response, and Recovery. (4) Formerly numbered Conservation of Archaeological and Ethnographic Materials C220.) Laboratory, four hours. Overview of risks (direct and indirect) and materials vulnerability of in situ cultural heritage and movable archaeological materials in emergency situations (rescue excavations, disasters, conflicts), with emphasis on readiness, first aid response, and recovery. Readiness focuses on preparedness and preventive measures, including reburials, shelters, rescue excavations, and documentation as well as developing inventories and awareness campaigns. First aid response covers development of on-site emergency risk assessments to evaluate damage and putting triage theory into practice, salvage rescue operations, emergency temporary in situ stabilization and protection (using locally available materials), and training. Recovery is based on documentation, lifting methods, handling, transportation, and storage. Emphasis on finding practical solutions to prevent and mitigate damage and to recover and safeguard archaeological artifacts. Concurrently scheduled with course C120. Letter grading.

M221. Principles, Practice, and Ethics in Conservation of Cultural Heritage / 361. (Formerly numbered Conservation of Cultural Heritage M221.) (Same as Art History M221B.) Seminar, three hours. Introduction to preservation of cultural heritage materials, including what should be preserved and why, including as who should make decisions. Consideration of preservation and restoration of these cultural heritage materials both in museum and outdoor environments. Contexts. Materials and techniques used to make cultural heritage materials and preservation efforts needed to prevent decay and loss. Introduction to examples of conservation issues related to sites, buildings, monuments, and collections. Ethical and practical aspects of using these in museum contexts. Letter grading.

222. Conservation and Community. (4) Formerly numbered Conservation of Archaeological and Ethnographic Materials 222.) Seminar, three hours. Designed for graduate conservation students. Introduction to work as conservators with indigenous repatriation, consulting cultural organizations. Students learn different models for tribal museums and cultural centers, and importance of material selection and properties in baskets they are treating. Letter grading.

224. Issues in Preservation and Management of Archaeological and Ethnographic Materials. (4) Formerly numbered Conservation of Archaeological and Ethnographic Materials C224.) Seminar, three hours. Designed for graduate conservation students. Introduction to offer practical model of preservation and management planning for heritage sites that reflects real case-study scenarios. Adaptive management planning following iterative processes for sustainable heritage preservation and protection of challenges such as climate change and global warming, conflicts, and neglect. Consideration of significance and value of heritage sites and role of stakeholders. Investigation of methods of evaluation of physical condition and development of risk assessments to address physical risks in milieu of site preservation management, including visitors’ organization, urban development, and socioeconomic growth, and tourist development. Letter grading.


234. Conservation Laboratory: Metals I. (4) Formerly numbered Conservation of Archaeological and Ethnographic Materials C234.) Laboratory, four hours. Enforced requisite: course 263. Recommended:
238. Conservation Laboratory: Organic Materials II. (4) (Formerly numbered Conservation of Archaeological and Ethnographic Materials 238.) Laboratory, four hours. Enforced prerequisite: course 262. Recommended for graduate conservation students. Typical treatments used historically and currently for deterioration problems found in organic materials from archaeological and ethnographic contexts. Materials include plant and animal fibers, feathers, and quills. Letter grading.

239. Conservation Laboratory: Metals II. (4) (Formerly numbered Conservation of Archaeological and Ethnographic Materials 239.) Laboratory, four hours; outside fieldwork, four hours. Recommended: courses M210, M215. Treatment of conservation problems of metallic artifacts made of iron, steel, cast iron, gold, zinc, and aluminum that have some organic components. Practical work on metallic artifacts. Letter grading.

240. Environmental Protection of Collections for Museums, Libraries, and Archives. (4) (Formerly Conservation of Archaeological and Ethnographic Materials 240.) (Same as Information Studies M328.) Lecture, two hours; laboratory, two hours. Requisite: Information Studies 432. Required of graduate conservation students. Review of environmental and biological agents of deterioration, including light, temperature, relative humidity, pollution, insects, and fungi. Emphasis on monitoring to identify agents and understanding of materials sensitivities, along with protective measures for collections. Letter grading.


242. Managing Collections for Museums, Libraries, and Archives. (4) (Formerly numbered Conservation of Archaeological and Ethnographic Materials 242.) Lecture, two hours; activity, two hours. Designed for graduate conservation students. How conservators work together with curators, collections managers, mount makers, designers, and registrars to permit collections to be both accessed and preserved. Concurrently scheduled with course C142. Letter grading.

244. Collection Management for Archives, Libraries, and Museums. (4) (Formerly numbered Conservation of Archaeological and Ethnographic Materials 244.) (Same as Information Studies M244.) Lecture, two hours; fieldwork, two hours. How conservators work together with curators, collections managers, mount makers, designers, and registrars to permit collections to be both accessed and preserved. Letter grading.


262. Structure, Properties, and Deterioration of Materials: Organics I. (2) (Formerly numbered Conservation of Archaeological and Ethnographic Materials 262.) Lecture, one hour; laboratory, one hour. General introduction to different types of organic materials used to produce ethnographic and archaeological cultural heritage. Relationship between material composition, processing, and properties of natural and manufactured materials using basic concepts from biology and chemistry. Structural stability and deterioration phenomena of these materials as found in cultural collections. Letter grading.


264. Structure, Properties, and Deterioration of Materials: Rock Art, Wall Paintings, Mosaics. (2) (Formerly numbered Conservation of Archaeological and Ethnographic Materials 264.) Lecture, three hours. Recommended preparation: basic knowledge of general chemistry and materials science. Introduction to materials and techniques of rock art, wall paintings (including painted surfaces on cement and composite decorative architectural surfaces), and mosaics. Archaeological and ethnographic context, techniques, and materials. Pigments, colorants, and binding media. Chemical, optical, and structural properties. Relationship between composition (chemistry), structure (crystals, molecular arrangement, and microstructure), and properties explained using basic concepts from physics and chemistry. Intrinsic attributes and resistance to weathering. Causes, sources, and mechanisms of deterioration (physical, chemical, and biochemical) Letter grading.

265. Structure, Properties, and Deterioration of Materials: Organics II. (2) (Formerly numbered Conservation of Archaeological and Ethnographic Materials 265.) Lecture, one hour; laboratory, one hour. General introduction to the nature of organic materials used to produce ethnographic and archaeological cultural heritage: wood, bark, paper, bast fibers, grasses. Relationship between materials, processing, and properties of natural materials using basic concepts from biology and chemistry. Structural stability and deterioration phenomena of these materials as found in cultural collections. Letter grading.

288. Special Topics in Conservation. (2 or 4) (Formerly numbered Conservation of Archaeological and Ethnographic Materials 288.) Lecture, three hours; laboratory, one hour. Special topics on theoretical and practical subjects in conservation including selected focus on recent materials studies, new conservation approaches, advanced scientific applications, or current special work by core program faculty or visiting scholars. If approved, field trips may be arranged. May be repeated for credit with topic or instructor change. Letter grading.

290. Conservation Program Internship. (6 or 12) (Formerly numbered Conservation of Archaeological and Ethnographic Materials 498.) Fieldwork, 20 or 40 hours. Open only to Conservation MA program graduate students who have completed first year of conservation program coursework. Supervised conservation-related, project-based, and/or fieldwork training in field projects (i.e., archaeological excavation, site management, indigeneous site preservation and consultation), as well as in museum, library, archive, and collections conservation and science departments, regional and national laboratories, or at other similar venues. All intern placements must be preapproved by program and developed in collaboration between student, faculty, graduate students, and host institution/agency. S/U grading.

596. Directed Individual Studies. (2 to 6) (Formerly numbered Conservation of Archaeological and Ethnographic Materials 596.) (Same as Information Studies M596.) Tutorial, to be arranged. May be repeated for credit. S/U grading.

597. Preparation for PhD Qualifying Examination. (2 to 12) (Formerly numbered Conservation of Archaeological and Ethnographic Materials 597.) Tutorial, to be arranged. May not be applied toward PhD course requirement. May be repeated for credit. S/U grading.

598. MA Thesis Preparation. (2 to 12) (Formerly numbered Conservation of Archaeological and Ethnographic Materials 598.) Tutorial, two hours; laboratory, one hour. Development of research paper on conservation topic or treatment-based investigation that can be theoretical in scope or practically oriented. Letter grading.

599. PhD Dissertation and Preparation. (2 to 12) (Formerly numbered Conservation of Archaeological and Ethnographic Materials 599.) Tutorial, to be arranged. May not be applied toward PhD course requirement. May be repeated for credit. S/U grading.
DENTISTRY
School of Dentistry
A0-111 School of Dentistry
Box 951762
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Dentistry
310-825-9789
Paul H. Krebsbach, DDS, PhD, Dean

Overview
The UCLA School of Dentistry offers courses for general campus students. Dentistry 199 and 199H are individual special studies courses for UCLA undergraduates with definitive research interests and abilities applicable to dentistry. The subject areas include oral biology, clinical research, and dental health policy. Interested students should contact the associate dean of research at 310-825-6401 to obtain the names and areas of interest of participating School of Dentistry faculty members. Dentistry faculty information is available from the department.

Dentistry
Lower-Division Courses
19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses
199. Individual Special Studies. (2 to 8) Tutorial, to be arranged. Studies in dentistry and related subject areas appropriate for training of particular students, with required reading assignments or laboratory work leading to final oral or written examination. May be repeated for maximum of 16 units. P/NP or letter grading.

199H. Individual Special Studies (Honors). (2 to 8) Tutorial, to be arranged. Studies in dentistry and related subject areas appropriate for training of particular students, with required paper submitted at end of course in addition to final examination (paper to be of publication quality as judged by course mentor). May be taken for maximum of 8 units. P/NP or letter grading.

Graduate Course
441C. Introduction to Healthcare. (2) Lecture, two hours. Description and analysis of American dental care system from historical, ethical, and legal perspectives. Assessment of how dentistry fits within general provision of healthcare services in America, with comparisons to dental care provisions in other countries. S/U grading.

DESIGN/MEDIA ARTS
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Associate Professor
Ramesh Srinivasan, PhD

Assistant Professors
Jenna B. Caravello, MFA
Chandler B. McWilliams, MFA, MA
Daniel S. Snelson, PhD

Overview
The Department of Design/Media Arts offers the Bachelor of Arts (BA) and Master of Fine Arts (MFA) degrees. The BA degree focuses on visual communication design, with emphasis on digital media. The MFA degree focuses on media arts. These uniquely challenging programs invite students to balance aesthetic sensibility with logical reasoning, formal theories with practical application, and contemporary thought with historical perspective.

The Department of Design/Media Arts reserves the right to hold for exhibition purposes examples of any work done in classes and to retain for the permanent collection of its galleries such examples as may be selected.

Facilities
Facilities and equipment in the department enable students to create work in two, three, and four dimensions. They expand opportunities for students to develop interactive media applications in a networked environment and advanced computer graphics. The department equipment includes computer laboratories with high-end PC and Macintosh computers and relevant software for the creation of works for print, web, video, and other media, a fabrication laboratory with equipment ranging from table saws to three-dimensional printers to a CNC machine to create physical objects combined with electronics, and a print laboratory with high-quality printers.

Undergraduate Major
Design/Media Arts BA
The undergraduate program begins with the study of basic design elements and processes: color, drawing, letterforms and typography, motion, and interactivity. Historical perspectives and social issues are also introduced. At the upper-division level, studio courses explore current uses of interactive media and new directions in visual communication design, including the study of time and motion, as well as virtual form and space in computer-generated environments. Through a balance of courses in theory, criticism, and practice, students develop an understanding of design principles. Most courses are taught as studios of no more than 22 students, which encourages individual growth and fosters a sense of community within the department.

Capstone Major
The Design/Media Arts major is a designated capstone major. Students are required to complete an advanced project of their own that entails full engagement with the design process. Through their capstone work, students demonstrate their capacities for research, ideation/concept development, creative and design direction, communication strategy, design, production/fabrication, and critical analysis. Capstone courses focus on career choice, and final projects are showcased at the spring senior show.

Learning Outcomes
The Design/Media Arts major has the following learning outcomes:

• Deep understanding of the field through immersion
• Exploration and development of ideas through listening to and observation of patterns
• Definition of an event and its surroundings and mise-en-scène, and the ethos of the student’s idea
• Development of the specifics of a design
• Conceptualization of how an idea reaches its audiences, and how it launches, and how it stays relevant and vibrant
• Designed specifics of each element of the visual vocabulary—from graphic elements to photography, videography, and illustrations—including definition of spatial, material, and auditory elements
• Thorough research of appropriate and relevant production methods
• Analysis, review, and critique of others’ work

Facilities and equipment in the department enable students to create work in two, three, and four dimensions. They expand opportunities for students to develop interactive media applications in a networked environment and advanced computer graphics. The department equipment includes computer laboratories with high-end PC and Macintosh computers and relevant software for the creation of works for print, web, video, and other media, a fabrication laboratory with equipment ranging from table saws to three-dimensional printers to a CNC machine to create physical objects combined with electronics, and a print laboratory with high-quality printers.
Requirements

Preparation for the Major
Required: Design/Media Arts 8, 10, 21, 22, 24, 25, 28.

The Major
Required: Twelve upper-division courses: Design/Media Arts 101, 104; six courses selected from 152, 153, 154, 155, 156, 157, 158, 161, 163; three courses selected from 160, 171, 172, 173; and one capstone course: 159.

It is recommended that students have each term’s program approved by the departmental adviser.

Consult the Schedule of Classes for courses limited to majors only.

Graduate Major

Design/Media Arts MFA

The three-year Master of Fine Arts (MFA) program fosters mature, professional-quality work utilizing the most current technologies in the field of media arts. The program focuses on developing an individual thesis project that incorporates in-depth research and theoretical exploration of a topic, culminating in a final exhibition of work.

Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Design/Media Arts

Lower-Division Courses

1. Graphic Design. (2) Studio, 30 hours. Limited to high school students. Basic and advanced photography skills using digital cameras. Alteration/manipulation of photos using techniques from latest version of Adobe Photoshop. Uploading of images on Web or in print. Production of digital and print portfolio of student work. Field trips to surrounding Los Angeles locales to shoot photos. May be repeated for credit without limitation. Offered only as part of Summer Institute. P/NP grading.

2. Web Design. (2) Studio, 30 hours. Limited to high school students. How Web design works: basic hand coding and creation of personalized homepages with Macromedia Director and Flash software. Photograph scanning and manipulation of images in Adobe Photoshop to incorporate student Web designs. Critique of various Web pages to analyze successful use of Web design and understand enormous potential of Internet. May be repeated for credit without limitation. Offered only as part of Summer Institute. P/NP grading.

3. Game Design. (4) Studio, 30 hours. Limited to high school students. Development of fundamental skills to create games and game art that express personal and subjective approach to game making. Artistic vision combined with technological expertise to teach students fundamental principles of designing games, building game worlds, creating game characters, and making playable games for mobile platforms. Use of current software and technology, including Maya and Unity3D. Creation of game projects that students exhibit and can use for college applications. Offered only as part of UCLA Game Lab Summer Institute. P/NP grading.

4. Audio Video Design. (2) Studio, 30 hours. Limited to high school students. Creation of storyboard for short documentary, commercial, or music video. Students shoot and edit their own work by learning fundamental aspects of postproduction and production using latest digital software such as Adobe Premiere and After Effects, to create their work. Burning of DVD of finished project. Visits from professional video producer to help guide students in creating their own videos. May be repeated for credit without limitation. Offered only as part of Summer Institute. P/NP grading.

5. Introduction to Design | Media Arts. (4) Studio, 40 hours. Limited to high school students. Two-week summer course designed to meet needs of high school students interested in exploring their creative potential within fields of design media arts, with focus on concepts of narrative and storytelling. Introduction to and exploration of variety of media such as graphic, web, game, and video design with goal of combining and integrating these media to express and realize their narrative projects. Students work with most current software and technology in each discipline area, developing diverse skill sets while cultivating conceptual capabilities around storytelling project, and with experienced instructors and professionals in field to develop projects utilizing this comprehensive and integrative approach. Culminates in projects that may be used for college applications. Possible field trips. May be repeated for credit without limitation. Offered only as part of Summer Institute. P/NP grading.

6. Art|Science and Technology Studio/Laboratory. (4) Studio/laboratory, 40 hours. Limited to high school students. Two-week summer course, including lectures, required screenings, laboratory visits, field trips, and outside study. Exploration of creative projects on scientific research and innovation to gain broad understanding of impact of science on contemporary art and popular culture, with focus on new sciences of biotechnology and genetic engineering. Development of proposals and ideas that could serve as prototypes for either art projects or scientific research study. P/NP grading.

7. Media Histories. (5) Lecture, three hours; discussion, one hour; outside study, 11 hours. Exploration and survey of cultural impact of scientific and cultural innovations, technology-driven art inspired by science, and art/science collaborative projects. Introduction to vast array of cutting-edge research taking place on campus; scientific guest lecturers. Emphasis on art projects that use technology and respond to new scientific concepts. P/NP or letter grading.

8. Art, Science, and Technology. (5) Lecture, three hours; discussion, one hour; outside study, 11 hours. Exploration and survey of cultural impact of scientific and cultural innovations, technology-driven art inspired by science, and art/science collaborative projects. Introduction to vast array of cutting-edge research taking place on campus; scientific guest lecturers. Emphasis on art projects that use technology and respond to new scientific concepts. P/NP or letter grading.

9. Design Culture. (5) Lecture, three hours; outside study, 12 hours. Open to nonmajors. Understanding design process, with emphasis on development of visual language; study of historic, scientific, technological, economic, and cultural factors influencing design in physical world. P/NP or letter grading.

10. Design Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating major paths and questions of UCLA. P/NP or letter grading.

11. Flat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating major paths and questions of UCLA. P/NP or letter grading.

12. Drawing and Color. (4) Studio, six hours; outside study, six hours. For drawing, exploration of relation-ship between concept and image creation while focusing on concept of drawing as tool for working with colors. Combination of painting and software to be predominant way of exploring and presenting ideas regarding color. P/NP or letter grading.

13. Form. (4) Studio, six hours; outside study, six hours. Internale of two-dimensional surfaces and three-dimensional forms with traditional and experimen-tal materials as foundation for creativity; origina-tion and solution of problems. P/NP or letter grading.

14. Motion. (4) Studio, six hours; outside study, six hours. Introduction and development of design tools, camera, and digital technologies for application to visual thinking and fundamentals of design. P/NP or letter grading.

15. Typography. (4) Studio, six hours; outside study, six hours. Focused on three typographic basics: letter, text, and grid. Introduction to fundamentals of type-ography. Assignments designed to develop understanding of form, scale, and shape of letters as single elements, as text in layout, and information hierarchy to create successful typographic messages. P/NP or letter grading.

16. Interaction. (4) Studio, six hours; outside study, six hours. Requires: courses 21, 22, 25. Introduction to concept of interactivity and field of media art that follows history of computer as media for artistic ex-prosion in relation to print, animation, and interactivity. Discussion of potential and ideas related to interac-tivity, with focus on required skills for creating interac-tive work. Development of programming skills in ser-vice of creating examples of digital artworks and skills taught enable student to excel in future courses about Internet, animation, interactive media, and game design. Discussion and readings on four themes—form/programming, motion, interactivity/pro-gramming, and interface. P/NP or letter grading.

17. Individual Course. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Stu-dents must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

101. Media Arts: Introduction. (5) Lecture, three hours; outside study, 12 hours. Limited to and required of Design/Media Arts majors. Survey of media arts, their history, aesthetics, and cultural roles from late-19th century to present. Investigation of media arts within broad historical and cultural framework. Discussion of parallels and links with other cultural forms, including history of technology and various art and design prac-tices. P/NP or letter grading.

104. Digital Futures. (8) Lecture, three hours; outside study, 12 hours. Preparation and completion of prepara-tion for major courses. Open to nonmajors with con-sent of instructor. Critical examination of design practice and theory of 20th and 21st centuries, incorpo-rating historical as well as speculative methodologies. Consideration of various design practices and techniques related to each other across cultures and media, with strong emphasis on communication design. P/NP or letter grading.

152. Tangible Media. (5) Studio, six hours; outside study, nine hours. Requires: courses 22, 28, and 101 or 104. Through workshops, readings, lectures, cri-tiques, and discussions, exploration of role of in-teractive design lecture as tool for working with colors. Combination of
153. Video. (5) Studio, six hours; outside study, nine hours. Preparation: completion of preparation for major courses. Requires: course 101 or 104. Use of video technology (video editing, cameras, tripods, editing, and sound) to integrate image, sound, time, and motion. Emphasis on expression, continuity, and sequential patterns for video communication. P/NP or letter grading.


155. Interactive Animation. (5) Studio, six hours; outside study, nine hours. Preparation: courses 101 or 104, and 156. Exploration of traditional and experimental animation techniques that are central to 2D and 3D interactive digital projects and video games. Course work develops skills and concepts that are integral to animation workflows and game engine animation systems including traditional animation principles, 2D sprite animation, rigging 2D and 3D game objects, and character controller implementation. Students experiment with common and alternative input methods for real-time interaction, ray tracing, image compositing, and class gameplay sessions supplement lessons. P/NP or letter grading.

156. Three-Dimensional Modeling and Motion. (5) Studio, six hours; outside study, nine hours. Preparation: completion of preparation for major courses. Requires: courses 24, 28, and 101 or 104. Introduction to game design, with focus on developing conceptual and practical skills that form basis for both digital and nondigital game development. Development of four playtable game projects that explore various aspects of game design: rule design, game balance, multiplier strategy, complexity, randomization, physical interaction and aesthetic and pragmatic aspects of physical game design. P/NP or letter grading.

157. Game Design. (5) Studio, six hours; outside study, nine hours. Preparation: completion of preparation for major courses. Requires: courses 24, 28, and 101 or 104. Introduction to game design, with focus on developing conceptual and practical skills that form basis for both digital and nondigital game development. Development of four playtable game projects that explore various aspects of game design: rule design, game balance, multiplier strategy, complexity, randomization, physical interaction and aesthetic and pragmatic aspects of physical game design. P/NP or letter grading.

158. Game Engine. (5) Studio, six hours; outside study, nine hours. Preparation: completion of preparation for major courses. Requires: courses 24, 28, 101 or 104, and 156. Exploration of conceptual space enabled by electronic media through exercises, presentations, discussions, and critiques. Weekly exercises balance concept and technique to reveal potential of computer as medium and tool. Experience with programming basics includes procedural and object-oriented programming, two- and three-dimensional graphics, file I/O, color models, and image processing. Letter grading.

159. Capstone Senior Project in Design Media Arts. (2–4) Studio, six and 12 hours. Tutorial, two hours. Preparation: 3.0 grade-point average, two semesters of advanced studio courses. Limited to seniors and students required. P/NP or letter grading. May be repeated for credit. Individual contract required. Letter grading.

160. Special Topics in Design Media Arts. (5) Studio, six hours; outside study, nine hours. Preparation: completion of preparation for major courses. Requires: course 101 or 104. Selection of knowledge and sensitivity to typographic in context of complex communication problems in print and digital media. Research, concept and content development, and articulation of methodology for visualization. P/NP or letter grading.

161. Network Media. (5) Studio, six hours; outside study, nine hours. Preparation: completion of preparation for major courses. Requires: courses 28, 154. Exploration of creative, technical, and critical tools to realize Internet-based projects. Focus on students gaining deeper understanding of Internet as creative platform—where did it come from, how does it work, how do you make things for it, and what do you want to say? Methods include: scripting, server-side technologies, file I/O, and IP. Topics announced in advance. May be repeated for credit. Letter grading.

162. Exploration of traditional and experimental animation techniques that are central to 2D and 3D interactive digital projects and video games. Course work develops skills and concepts that are integral to animation workflows and game engine animation systems including traditional animation principles, 2D sprite animation, rigging 2D and 3D game objects, and character controller implementation. Students experiment with common and alternative input methods for real-time interaction, ray tracing, image compositing, and class gameplay sessions supplement lessons. P/NP or letter grading.

163. Narrative. (5) Lecture, six hours; outside study, nine hours. Preparation: completion of preparation for major courses. Requires: course 101 or 104. Provides wider understanding of arts that parallels world of 20th-century visual culture by theories that allow viewer to connect story of one art form to another in richer context. Letter grading.

164. Topics in Interactivity and Games. (5) Studio, six hours; outside study, nine hours. Preparation: completion of preparation for major and upper-division core courses required. Requires: courses 101 or 104, 157. Selected topics in interactive media and games explored through various means of approaches that may include projects, presentations, papers, and oral presentations. Topics announced in advance. May be repeated for credit. Letter grading.

165. Topics in Video and Animation. (5) Studio, six hours; outside study, nine hours. Preparation: completion of preparation for major and upper-division core courses required. Requires: courses 24, 28, 101 or 104, and 156. Selected topics in video and animation explored through various means of approaches that may include projects, readings, discussions, research papers, and oral presentations. Topics announced in advance. May be repeated for credit. Letter grading.

166. Topics in Visual Communication and Image. (5) Studio, six hours; outside study, nine hours. Preparation: completion of preparation for major and upper-division core courses required. Requires: courses 24, 28, 101 or 104, and 156. Selected topics in visual communication and image explored through various means of approaches that may include projects, readings, discussions, research papers, and oral presentations. Topics announced in advance. May be repeated for credit. Letter grading.

167. Topics in Visual Communication and Image. (5) Studio, six hours; outside study, nine hours. Preparation: completion of preparation for major and upper-division core courses required. Requires: courses 24, 28, 101 or 104, and 156. Selected topics in visual communication and image explored through various means of approaches that may include projects, readings, discussions, research papers, and oral presentations. Topics announced in advance. May be repeated for credit. Letter grading.

168. Advanced Honors Seminars. (5) Seminar, three hours. Limitations for 20 students. Designated as an undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other exercises. Course does not constitute major work. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

169A–169B. Community or Corporate Internships in Design Media Arts. (2–4) Topics, six and 12 hours. Limited to juniors/seniors. Internship in supervised setting in community agency or business related to design. Students meet on regular basis with instructor and provide periodic reports of their experience. Courses 169A and 169B may be repeated for combined maximum of 8 units. Individual contract with supervising faculty member required. P/NP or letter grading.

170. Honors Research in Design | Media Arts. (4) Tu- torial, four hours. Preparation: 3.0 grade-point average overall. Limited to juniors/seniors. Development and completion of an honors or comprehensive re- search project under direct supervision of faculty mentor. May be repeated once for credit. Individual contract required. Letter grading.

171. Directed Research in Design | Media Arts. (2 to 5) Tutorial, four hours. Preparation: 3.0 grade-point av- erage in major. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract re- quired. P/NP or letter grading.

Graduate Courses

200. Design | Media Arts Faculty Seminar. (2) Sem- inar, two hours. Limited to graduate design | media arts students. Designed to familiarize new graduate stu- dents with departmental and discipline's creative work and research to help students select their faculty advisers. May be repeated once for credit. S/U grading.

252A. Programming Media 1. (5) Studio, six hours; outside study, nine hours. Preparation: 3.0 grade-point average. Introduction to computer programming within context of art and design. Exploration of conceptual space enabled by electronic media through exercises, presentations, discussions, and critiques. Weekly exercises balance concept and technique to reveal potential of computer as medium and tool. Experience with programming basics includes procedural and object-oriented programming, two- and three-dimensional graphics, file I/O, color models, and image processing. Letter grading.

252B. Programming Media 2. (5) Studio, six hours; outside study, nine hours. Preparation: 3.0 grade-point average. Introduction to essential 3D computer graphics tech- niques, concepts, and applications. Students complete short exercises to better understand work- flows used to create 3D digital art and adjacent media including but not limited to 3D models and animation, virtual and augmented reality, video games, motion capture, photogrammetry, 3D scanning, and physics simulations. Offers technical, formal, and theoretical background for 3D computer graphics to inspire new perspectives on potential of artmaking in virtual spaces. Letter grading.

252C. Virtuality. (5) Studio, six hours; outside study, nine hours. Limited to Design | Media Arts majors. Intro- duction to essential 3D computer graphics tech- niques, concepts, and applications. Students complete short exercises to better understand work- flows used to create 3D digital art and adjacent media including but not limited to 3D models and animation, virtual and augmented reality, video games, motion capture, photogrammetry, 3D scanning, and physics simulations. Offers technical, formal, and theoretical background for 3D computer graphics to inspire new perspectives on potential of artmaking in virtual spaces. Letter grading.

269. Graduate Seminar. (4) Seminar, four hours. De- signed for graduate design | media arts students. Survey of critical theories in media art and design. Critical examination of theories in studio practice, with scheduled meetings to be arranged between students, faculty members, and expert guests. Must be taken twice for MFA degree. May be repeated for credit with consent of adviser. Letter grading.

272. Introduction to Art | Science. (5) Seminar, three hours. For past 50 years artists have increasingly moved from being inspired by scientific innovation and discovery to actually collaborating with scientists and even residing and working in science laboratories. History of science in relation to artists' interpretation of scientific work to current works that are created in re- sponse to recent developments in biotechnology and nanotechnology. Letter grading.

280. Topics in Design Media Arts. (3) Seminar, 90 minutes; seven and one half hours arranged. Exam- ination of topics relevant to media arts theory and practice, with scheduled meetings to be arranged.
tween faculty member and student as needed. Topics announced in advance. May be taken for maximum of 18 units. Letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

403. Graduate Critique. (2) Seminar, three hours; outside study, three hours. Limited to first- and second-year departmental graduate students. Students meet with instructor in small classroom setting to exchange ideas through presentation of current projects and research, discussion, research papers, and reports. Instructors may invite visiting critics to contribute. May be repeated for credit. S/U grading.

404. Graduate Tutorial. (3) Tutorial, three hours; outside study, six hours. Limited to first- and second-year departmental graduate students. Development of body of work while working toward MFA degree, with one-to-one interaction between students and faculty members. May be repeated for credit. Letter grading.

495. Teaching Assistant Training Practicum. (2) Seminar, three hours; outside study, three hours. Forum for first-year teaching assistants for discussion and exploration of teaching methodology and classroom mechanics. Problems and practices of teaching design at college level, as well as role of teaching assistants within department. Designed to help new teaching assistants develop teaching skills and to orient them to department and University policies and resources. May not be applied toward degree requirements. S/U grading.

596. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. May be repeated for credit with consent of adviser. S/U or letter grading.

597. Preparation for MFA Comprehensive Examination. (4 to 8) Tutorial, to be arranged. Designed for second-year MFA students to prepare for comprehensive examination. May be repeated for credit with consent of adviser. S/U grading.

598. MA Research and Thesis Preparation. (4 to 12) Tutorial, to be arranged. Designed for second-year MA students. May not be applied toward minimum graduate course or unit requirements for MA degree. May be repeated for credit. S/U grading.

Digital Humanities Minor
Interdisciplinary Minor
College of Letters and Science
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Digital Humanities
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Minor e-mail
Chris J. Johanson, PhD, Chair
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Faculty Committee
Maria (Maité) T. de Zubiaurre, PhD (European Languages and Transcultural Studies, Spanish and Portuguese)
Christ J. Johanson, PhD (Classics)
David W. MacFadyen, PhD (Comparative Literature, Musicology)
Safiya U. Noble, PhD (African American Studies, Education, Gender Studies, Information Studies)
Miriam Posner, PhD (Information Studies)

Todd S. Presner, PhD (Comparative Literature, European Languages and Transcultural Studies)
Ashley R. Sanders, PhD (European Languages and Transcultural Studies)
Daniel S. Snelson, PhD (English)
Francis F. Steen, PhD (Communication)
Willeke Z. Wendrich, PhD (Near Eastern Languages and Cultures)

Overview
The Digital Humanities minor is an interdisciplinary minor that studies the foundations and futures of the digital world. Digital humanities interprets the cultural and social impact of the new information age as well as creates and applies new technologies to answer cultural, social, and historical questions, both those traditionally conceived and those enabled by new technologies. The interdisciplinary curriculum draws on faculty members from more than 15 departments, five schools, and three research centers at UCLA. It places project-based learning at the heart of the curriculum, with students working in collaborative teams to realize digital research projects with real-world applications. Students use tools and methodologies such as three-dimensional visualization, data mining, network analysis, and digital mapping to conceptualize and advance research projects. Students have the opportunity to make significant contributions to scholarship in fields ranging from archaeology and architecture to history and literature. By preparing students to be active participants in the design and production of new knowledge, the minor emphasizes the critical thinking skills, creativity, and collaborative methodologies necessary for success in the digital information age.

Undergraduate Minor
Digital Humanities Minor
The Digital Humanities minor is intended to provide students with literacy in creating, interpreting, and applying the technologies of the digital world. It examines the cultural and social impact of new technologies and enables students to harness these technologies to develop their own research projects in a wide range of fields.

Admission
To apply for the minor, students must (1) have an overall grade-point average of 2.7 or better and (2) submit an application essay supporting their interest in pursuing the minor and enumerating any digital projects that they have already undertaken. On acceptance to the minor, students are expected to identify an academic area of digital humanities in which they intend to concentrate. Information about the minor is available on the minor website. To submit an application for the minor, see the website.

The Minor

Required Upper-Division Courses (25 to 28 units): Digital Humanities 101; one upper-division elective course selected from Digital Humanities 110 through 160; one capstone course selected from Digital Humanities 187, 198, or 199; and three elective courses selected from Ancient Near East M101C (or Art History M110C), M125A, M125B (or Architecture and Urban Design M125B), M125C (or Architecture and Urban Design M125C), M162, C165, C169 (or Anthropology CM110Q), Anthropology M116R (or Chinese M183), Architecture and Urban Design 132, Armenian C153, Art History C145A, C145B, Classics 164, 166B, Design/Media Arts 104, Digital Humanities 151, 195 or 196, English 118A, History 188, Korean 183, 187, Russian 121, 129, Scandinavian C133A, C171, Society and Genetics 131, 175, Spanish 130, 150, 170, Urban Planning 129, 141.

Policies
Variable topics courses may be taken as topics apply.
A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.
Each minor course must be taken for a letter grade. Successful completion of the minor is indicated on the transcript and diploma.

Digital Humanities
Lower-Division Courses
19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.
30. Los Angeles Tech City: Digital Technologies and Spatial Justice. (5) Lecture, two and one half hours; studio, two hours. Investigation of spatial justice and injustice in multi-ethnic cities of Los Angeles through Lens of three thematic technologies that built and transformed Los Angeles into global metropolis: cars and highways, networks culminating in Internet and World Wide Web, and film and broadcast media. Use of innovative forms of investigation and communication, from digital mapping to video-sensing, to integrate interpretative and historical approaches of humanities with material and projective practices of design. Letter grading.
89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.
89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.
99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Stu-
101. Introduction to Digital Humanities. (4) Lecture, 75 minutes; tutorial, 75 minutes. Foundation course for students in Digital Humanities minor, providing theoretical and conceptual framework for understanding genesis of digital world. Use of contemporary cultural and historical methodology to focus on new media and information technologies in 19th, 20th, and 21st centuries, such as photography, film, radio, television, Internet, and World Wide Web and their impact on society, governments, groups, and cultures experienced their worlds. Letter grading.

110. User Experience and Design. (4) Seminar, three hours. Requisite: course 101. Introduction to fields of user experience (UX) research and design. Covers UX research methods including qualitative and quantitative analysis of how users engage with websites. Focus on how to design for user experience and evaluate user interfaces. Letter grading.

120. Social Media Data Analytics. (4) Lecture, three hours; laboratory, one hour. Requisite: course 101 or consent of instructor. Social media data analytics, with focus on questions of power, privilege, identity, whose voices are heard in what spaces, as well as how data science and digital humanities may be used to challenge power structures. Study of how social media has been used both to undermine and to support social justice and change movements in ways in which social media is currently used by corporate entities, and ethical data usage. Students learn digital research methods including quantitative and qualitative data analysis, as well as data visualization to examine social media data. Letter grading.

M121. Race, Gender, and Data. (4) Same as Community Engagement and Social Change M121. Seminar, three hours. Requisite: course 101. Data plays a crucial role in political representation, governmental resource allocation, and policy decisions. Investigation of how data does or does not ascribe a quantitative value to a human life by employing a community-engaged approach. Students will learn how emerging digital models link data with social justice organizing. Students learn to read datasets produced by governmental entities such as the U.S. Census Bureau, Bureau of Labor Statistics, and Department of Health and Human Services. Assignments include working on a community-engaged data project that evaluates and addresses key concerns facing communities-of-color. Introduction to community data studies and data ethics. Studio sessions include lessons on finding and analyzing datasets relevant to racial and gender justice themes; and to generating data visualizations, digital stories, and maps using the latest software tools. No prior knowledge of statistics or quantitative analysis is required. IPNP or letter grading.

125. Data Analysis for Social and Cultural Research. (4) Seminar, three hours. Requisite: course 101 or consent of instructor. Data analysis and statistical methods tailored for students in humanities and social sciences, with focus on topics and issues related to social justice. Study of descriptive and inferential statistics as applied in humanistic research. Consideration of how to generate evidence-based, statistically sound arguments, applying methods learned throughout the course to a collaborative project. Students learn statistical methods, R Studio environment and language, and how to communicate their arguments in cogent narratives supported by evidence. Letter grading.

131. Digital Mapping and Critical Geographic Information Systems. (4) Seminar, three hours. Requisite: course 101 or consent of instructor. Introduction to digital mapping and critical geographic information systems. Study of basic data types including geographic, structured, and unstructured. Students engage with fundamental mapping practices such as geolocating structured data, working with open data through web mapping technologies, georeferencing historical maps, and analyzing human-based narratives and visualizations. Through project-based learning, students discover how to manage and apply data to wide range of digital mapping technologies. Consideration of how to incorporate these concepts into humanities and social sciences research. Letter grading.


140. Coding for Humanities. (4) Seminar, three hours. Requisites: course 101. Introduction to coding, with focus on Python. Study of basic structural elements such as lists, if statements, dictionaries, loops, function systems (GIS) cartography, mobile telephony, real-time data collection, social media, digital databases, and interactive web platforms can be deployed to research and document urban experience. Familiarization with basic components of urban interface, from affordable housing to access to public space and employment, to civic participation. Letter grading.

150. Advanced Topics in Digital Humanities. (4) Seminar, three hours. Requisite: course 101. Seminar introduces students to advanced research methods or thematic issues in digital humanities such as database and visualization technologies, social media technologies, application programming interfaces, and digital mapping to acquire familiarity with particular set of technologies by learning practical research methods and theoretical issues to carry out advanced research in this area. Students consult with advisors for topics to be offered in specific term. May be repeated for credit with topic change. Letter grading.

151. Advanced Topics in Urban Humanities. (4) Seminar, three hours. Requisite: course 101. Students pose critical questions about social impact of data, while also gaining literacy in digital humanities research project. Students learn to develop and refine research question, carry out advanced research in digital humanities, and present results of their research to their peers. Students participate in structured trainings, work with classmates to select suitable research topics, give weekly updates about their research process, and develop presentation of project. Librarians and members of Digital Research Consortium introduce students to available digital collections, archives, and other resources at UCLA. Letter grading.

187. Capstone Seminar in Digital Humanities. (4) Seminar, three hours. Requisite: course 101. Students are guided in development and realization of collaborative digital humanities research project. Students learn to develop and refine research question, carry out advanced research in digital humanities, and present results of their research to their peers. Students participate in structured trainings, work with classmates to select suitable research topics, give weekly updates about their research process, and develop presentation of project. Librarians and members of Digital Research Consortium introduce students to available digital collections, archives, and other resources at UCLA. Letter grading.

196. Research Apprenticeship in Digital Humanities. (4) Tutorial, three hours per week. Limited to juniors/seniors. Entry-level research apprenticeship for undergraduate students co-supervised by faculty mentor. May be repeated for credit. Individual contract required. IPNP or letter grading.


199. Directed Research in Digital Humanities. (2 to 4) Tutorial, one hour. Requisite: course 101. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. Letter grading.

Graduate Courses

201. Introduction to Digital Humanities. (5) Seminar, three hours; laboratory, one hour. Introduction to field of digital humanities. Historical overview of field from its beginning in post-World War II era to present, highlighting major intellectual problems, disciplinary paradigms, and institutional challenges that are posed by digital humanities. Examination of major epistemological, methodological, technological, and institutional challenges posed by digital humanities through number of specific projects that address fundamental problems in creating, interpreting, preserving, and transmitting human cultural record. How digital technologies and tools, ranging from map visualizations and modeling environments to database structures and interface design, are arguments that make certain assumptions about, and even transform, objects of study. Letter grading.

M221. Data and Society. (4) Same as Social Science M240.) Seminar, three hours. Introduction to way data and computing technologies increasingly play pivotal role in social life. Students pose critical questions about the impact of emerging digital and data technologies and tools, ranging from map visualizations and modeling environments to database structures and interface design, arguments that make certain assumptions about, and even transform, objects of study. Letter grading.

230. Special Topics in Digital Humanities. (4) Seminar, three hours. Enforced requisite: course 201. Introduction to advanced research methods or thematic issues in digital humanities, such as digital textual analysis, digital mapping database and visualization technologies, or social media technologies. Acquisition of familiarity with particular set of technologies by learning practical research methods and theoretical issues to carry out advanced research in this area. Examination of critiques of theoretical underpinnings of social sciences and humanities. May be repeated for credit with topic change. Letter grading.

259. Special Projects in Digital Humanities. (2 to 4) Tutorial, one hour. Enforced requisite: course 201. Limited to and required of graduate students in Digital Humanities. Development and Graduate Committee supervised research and investigation under guidance of faculty mentor. Culminating project required. May be repeated for maximum of 12 units. Letter grading.

296. Directed Individual Study or Research. (2 to 12) Tutorial, to be arranged by student with faculty member who directs study or research. S/U or letter grading.

195. Community or Corporate Internships in Digital Humanities. (4) Tutorial, two hours; fieldwork, eight hours. Limited to juniors/seniors. Internship in supervised setting in community agency or business. Placement to be arranged by instructor. Students meet on regular basis with instructor and provide periodic reports of their experience. May be repeated for credit. Individual contract with supervising faculty member required. Letter grading.

196. Research Apprenticeship in Digital Humanities. (4) Tutorial, three hours per week. Limited to juniors/seniors. Entry-level research apprenticeship for undergraduate students co-supervised by faculty mentor. May be repeated for credit. Individual contract required. IPNP or letter grading.


199. Directed Research in Digital Humanities. (2 to 4) Tutorial, one hour. Requisite: course 101. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. Letter grading.
Disability Studies

Interdepartmental Program
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Disability Studies
310-206-1667
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Salih Can Açıksöz, PhD (Anthropology)
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Helen E. Deutsch, PhD (English)
Rachel C. Lee, PhD (English, Gender Studies, Society and Genetics)
Victoria E. Marks, BA (World Arts and Cultures/Dance)
Lauren L. McCarthy, MFA (Design/Media Arts)
Christina G.S. Palmer, PhD (Psychiatry and Biobehavioral Sciences)

Overview
Disability—whether bodily, cognitive, emotional, or sensory—is part of the fabric of universal human experience; yet it is often regarded as a deficit to be fixed, cured, or hidden, with disabled individuals cast as unfortunate victims. The robust Disability Studies program is challenging this view, changing attitudes, and redefining normal.

By exploring disability as a social issue and cultural identity rather than a medically defined condition, students are prepared to use the experience of disability as a lens to re-envision models of access, inclusion, participation, communication, and equality.

Led by some of the most distinguished UCLA faculty, disability studies examines the meaning and nature of disability from a variety of perspectives, including arts and humanities, health sciences, social sciences, public policy, technology, and education. At UCLA, the conversation around disability has shifted from exclusion to inclusion, from limitations to possibilities.

Undergraduate Major

Disability Studies BA

Disability Studies is a multifaceted field that examines the nature, meaning, and consequences of disability. The Bachelor of Arts (BA) degree in Disability Studies is an interdisciplinary, community-based, capstone major. It appeals to undergraduates seeking a conceptual and practical understanding of disability as a foundation for graduate or professional studies and/or careers across a broad spectrum of professions. The major curriculum recognizes disability as a central part of our lived experience; a critical dimension of social, cultural, and political identity; and a frequent target of discrimination and exclusion. Through foundational courses, interdisciplinary electives, community-engaged course work, and a senior capstone research project, students in the major learn to think critically about disability as a core aspect of the human experience, preparing them to enact transformational change across disability communities and beyond.

Capstone Major

The Disability Studies major is a designated capstone major. Students have the option of completing a capstone seminar (Disability Studies 191) or independent research project (Disability Studies 198A and 198B, or 199A and 199B) that enables them to use knowledge and skills acquired through previous coursework to engage, under the guidance of a faculty member, in a research or creative project that results in a final paper or other product.

Learning Outcomes

The Disability Studies major has the following learning outcomes:

- Demonstrated understanding of disability studies concepts, theories, history, and political movements
- Integration of multiple perspectives on disability through interdisciplinary inquiry
- Development of professional skills through academic and applied experiences
- Use of theory to inform practice through participation in community-engaged learning activities
- Conduction and communication of research to various audiences

Entry to the Major

Admission

Students must first complete all preparation for the major courses. Students must have a UC grade-point average (GPA) of 2.0 or better in major courses. Students must have a UC grade-point average (GPA) of 2.0 or better in major courses. Students must have a UC grade-point average (GPA) of 2.0 or better in major courses. Students must have a UC grade-point average (GPA) of 2.0 or better in major courses. Students must have a UC grade-point average (GPA) of 2.0 or better in major courses. Students must have a UC grade-point average (GPA) of 2.0 or better in major courses. Students must have a UC grade-point average (GPA) of 2.0 or better in major courses. Students must have a UC grade-point average (GPA) of 2.0 or better in major courses. Students must have a UC grade-point average (GPA) of 2.0 or better in major courses.

Transfer Students

Transfer applicants to the Disability Studies major with 90 or more units must complete the following preparatory courses prior to admission to UCLA: one social theory course; one race, identity, and society course; one humanities and ethics course; and one data analysis course. Disability Studies 1 must be taken at UCLA once a transfer student is admitted to the University.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major

Required: (1) Disability Studies 1; (2) one social theory course selected from Anthropology 3, Public Affairs 10, 80, or Sociology 1; (3) one race, identity, and society course selected from African American Studies 1, 6, American Indian Studies M10, Asian American Studies 10, 20, 30, 40, 50, Chicana/o and Central American Studies 10A, 10B, 20, Clusters 20B, M172B, 80BX, Communication M172B, Design/Media Arts 10, Education 11, Gender Studies 10, Labor Studies 10, Society and Genetics M172B, Sociology M172B, or World Arts and Cultures M23; (4) one humanities and ethics course selected from Clusters M171B, 73B, Comparative Literature 1E, Design/Media Arts 10, Molecular, Cell, and Developmental Biology 60, Philosophy 22, 22W, Society and Genetics 5, or M171B; and (5) one data analysis course selected from Education 35, Life Sciences 40, Political Science 6, Public Affairs 60, Statistics 10, or 13.

The Major

Required Core Course (5 units): Disability Studies 101W.


Interdisciplinary Perspectives on Disability (16 units): Select one course from each of the four categories:

Category 1: Health Humanities and Bioethics—Anthropology 137P, 149 (when offering a disciplinary perspective of disability), Asian American Studies M117, M129, M161, Community Health Sciences 100, M140, Comparative Literature 180, Disability Studies 138XP, M139, M148, M168 and M172XP (must be taken together to satisfy requirement), M183, Education 132, Health Policy and Management M110, History 179A, 179B, 179C, Honors Collegium M183, Nursing M172 and M172XP (must be taken together to satisfy requirement), Philosophy 173, Public Affairs M131, 134, Psychology M107, 127A, 127B, 127C, M139, Society and Genetics M166, M183, or Sociology M148

Category 2: Access and Social Change—Community Engagement and Social Change 172XP, Disability Studies 145, M148, M149, M166, M172 and M172XP (must be taken together to satisfy requirement), Design/Media Arts 171, Education 104A, Gender Studies 152, Nursing M172 and M172XP (must be taken together to satisfy requirement), Psychology 132A, Society and Genetics M166, Sociology M120, or M148

Category 3: Representation, Embodiment, and Disability Culture—American Sign Language
M115. Comparative Literature 180, Disability Studies M103, 111, M114, M115, M121, M139, M161, English M103, Gender Studies 104, M121, M161, Psychology M139, or Theater M114

Category 4: Global and Historical Perspectives—Anthropology 137P, 149 (when offering an interdisciplinary perspective of disability), Community Health Sciences 132, Comparative Literature 180, Disability Studies M103, English M103, Gender Studies 152, History 179A, 179B, or 179C

Internship or Research Practicum (8 units): Disability Studies 195CE (taken twice) or 196 (taken twice).

Capstone (5 or 6 units): one capstone course from Disability Studies 191 (5 units) or two capstone courses from Disability Studies 198A and 198B (6 units) or 199A and 199B (6 units).

Honors Program
All honors students must complete their capstone requirement by taking courses 198A and 198B, in which they research, write, and present an honors thesis.

Policies
Preparation for the Major
All courses must be completed with a 2.0 or better grade-point average.

The Major
Each course must be taken for a letter grade, and students must earn a C or better grade in Disability Studies 101W.

Disability Studies 101W and one quarter of Disability Studies 195CE or 196 must be taken prior to the capstone.

Honors Program Admission
The honors program is open to majors with a 3.5 departmental and a 3.0 overall grade-point average (GPA). Students with lower GPAs may petition for admission to the program. Students should apply by winter quarter of the junior year. For application forms and more information, contact the departmental counselor in A316 Murphy Hall.

Requirements
To receive honors at graduation, students must have at least a 3.5 GPA in courses applied toward the major (including 198A and 198B) and an overall GPA of 3.0.

Disability Studies

Lower-Division Courses

1. Construction of (Dis)ability and Ableism in U.S. (5) Lecture, two hours; discussion, two hours. Examination of ways in which certain bodies and minds have been categorized, disabled, concealed of, opressed, and liberated in U.S. over time. Using intersectional lens, exploration of origins of American eugenics movement, social construction of normalcy and (dis)ability, and ableism in its many forms (e.g., individual, legal, medical, cultural, financial). Students learn how to apply critical disability studies framework to evaluate relationships between race, ethnicity, language, gender, sexual orientation, income, and disability in relation to disablement and ableism. Covers key topics and theoretical frameworks in disability studies to give students foundational and conceptual knowledge to analyze social, political, and cultural issues from critical disability studies perspectives. P/NP or letter grading.

10. Intersections of Art History and Disability Studies: Disability in Modern Art. (5) Lecture, four hours. Breadth of viewing course featuring manifesta-
testations through modern art in the 19th and 20th centuries. Introduction of historical development and fundamental intellectual and ethical issues associated with representations of disability in arts and humanities. Investigation of complex relations between artistic and humanistic expression and this major facet of society and culture. Introduction of new methodology and language to build understanding of the complex relationship between art and disability. May be repeated for credit with topic or instructor change. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of the concept of disability and how it changes. Letter grading.

89HC. Honors Contracts. (1 to 2) Tutorial, three hours. Limited to students in College Honors Program. May be repeated for credit with topic or instructor change. P/NP or letter grading.

101W. Perspectives on Disability Studies. (5) Lecture, one hour; discussion, two hours. Open for credit to students with credit for course 101W. Creation of critical framework for understanding concept of disability from sampling of disciplinary perspectives. Organized around product and central tension in disability studies—between disability as lived subjective experience that is both individual and communal, and disability as objective, medical, and sometimes stigmatized category. Students encouraged to make connections between units and to create their own perspectives on disability in field that defines itself by how it changes. Letter grading.

102. Disability and Violence. (4) Seminar, three hours. Relationship between disability and violence from three angles: (1) review of disproportionate incidence of violence committed by able-bodied white men, whether specifically as form of hate crime or based on dependency and/or vulnerability that accompany some types of disability, (2) study of role of disability and particularly mental illness in representations of crime and violence, and (3) disempowerment of emer-
gent disability (injuries, illnesses, and impairments cre-
ted by social inequality) as consequence of inter-
sectional forms of racial, gender, sexual, class, disability, or as result of state or interpersonal violence. Consideration of possible coalition-based strategies for challenging systemic subordination and prospects for improving disability-consciousness across international efforts and campaigns. P/NP or letter grading.

M103. Studies in Disability Literatures. (5) (Same as English M103.) Lecture, four hours; discussion; one hour (when scheduled). Enforced prerequisite: English Composition 3 or 3H. Survey of modes of disability in literature, with specific emphasis on thematic concerns. Topics may include introduction to disability studies; race, gender, and disability; disability narratives; etc. May be repeated for credit with topic or instructor change. P/NP or letter grading.

111. Disability and Popular Culture. (4) Lecture, four hours. Drawing from disability studies, media studies, and the theory of representation, examination of in-
creasing visibility of people with disabilities in popular culture. How disability is represented and who gets to represent it. Analysis and critique of representations of people with disabilities in late 20th and early 21st cen-
tury cinema and television to understand functioning of representation in popular culture. Development of critical media literacy skills. P/NP or letter grading.

M112. Disability and Musical-Dramatic Arts: Representation, Embodiment, Themes, and Practices. (5) (Same as Musicology M113.) Lecture, four hours; discussion, one hour. Exploration of ways disability and impairment factor into musical and musical-dramatic creation and performance, considered historically and in relation to social inequity, disability, ableism, music technologies and instrument design; representation of disability in music; and more. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M113. Variable Topics on Music and Disability. (4) (Same as Musicology M113.) Seminar, four hours. Analysis and critique of depiction of disability and music. Topics may include introduction to disability studies; exploring work and creative strategies of dis-
abled musicians; music technologies and instrument design; representation of disability in music; and more. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M114. Variable Topics in Performance and Disability Studies. (4) (Same as American Sign Language M114.) Lecture, seminar, four hours. Analysis and critique of depiction of disability in theater. Topics may include introduction to disability studies; race, gender, and disability; representation of disability in theater; and more. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M115. Enforcing Normalcy: Deaf and Disability Studies. (4) (Same as American Sign Language M115.) Lecture, three hours. Exploration of historical, medical, social, political, philosophical, and cultural in-
fluences that have constructed categories of nor-
malcy, disability, and deafness. Building on writing of Michel Foucault and critical work in field of disability studies, inquiry into institutions that have enforced standards of normalcy throughout 19th and 20th cen-
turies to present. Primary attention to rise of medical
authority in West, history of eugenics, and contemporary bioethics issues confronting disability and deaf communities. P/NP or letter grading.

120. Special Topics on Race and Disability. (4) Lecture, four hours. Exploration of race and disability, with emphasis on lived realities of people of color with disabilities. Use of scholarly texts from disability studies, sociology, gender studies, or critical race studies to investigate race and disability in representations and systems that shape race, ableism, and dominant/non-dominant power dynamics. P/NP or letter grading.

M121. Topics in Gender and Disabilities. (4) Same as Gender Studies M121.) Lecture, three and one half hours. Limited to juniors and seniors. Ways in which disability is a gendered experience of language delay, disorder, difference, and difficulty from disability studies perspective. Presenta-
tion of key concepts and terminology of disability, culture, and language use. Discussions and assignments critically evaluate findings on language acquisition by asking questions about disability studies scholarship about inclusion, identity, and socially constructed experience, and power. P/NP or letter grading.


139X. Normative Ethics. (4) Same as Gender Studies M161.) Lecture, four hours. Since cre-
ation of International Olympic Committee in 1894, ath-
letes with disabilities have had, and been denied, full access and representation in the games. This course explores intersection of justice and disability, addressing variety of perspectives and theories related to disability and masculinity. Students analyze and practice research, writing, and skills integration, competition versus charity, and masculinity. Sources include readings, film, television, and biographical writings that address sports, body and disability narratively, and Special Olympics specifically. P/NP or letter grading.

163A-163B. Autism Media Laboratory. (5-) Lecture, two hours; discussion, one hour. Course 163A is re-
quired to course 163B. People with autism who are nonspeaking face challenges in and out of their communities. Exploration of documentary filmmaking as catalyst to educate greater community on impor-
tance of inclusion of people with disabilities. Students will work on producing documentaries that are directed by advocates who are nonspeaking or minimally speaking, to create documentary short films. Students explore issues related to autism and disability while gaining exposure to observational, interview-based, and participatory documentary shooting and editing techniques. Letter grading.

M164A. Documentary Production for Social Change. (Formerly numbered 138SL.) Lecture, three hours; fieldwork, two hours. Exploration of documentary filmmaking as cat-
ylist for social change, using daily commute in Los Angeles as case study. Introduction to ideas of race, ethnicity, gender, disability, and class on experiences of commuting, access to public transportation, and car-based versus alternative (bike and pedestrian) forms of commuting. Exposure to observational, inter-
view-based, and participatory documentary shooting and editing techniques, as well as social marketing strategies that are vital to documentary production and distribution. Letter grading.

M164B. Documenting Disability on Film. (4) Lecture, four hours. Nonfiction digital media is used as con-
temporary form of investigation or research or is at-
tached to research projects, built into websites, used in community programs for social advocacy and ex-
hibited at film festivals. Social-issue documentaries appear more frequently on cable, public television, and Internet. Examination of how powerful documentaries and nonfiction digital media are used as catalyst to educate greater community on impor-
tance of inclusion of people with disabilities. Students will work on producing documentaries that are directed by advocates who are nonspeaking or minimally speaking, to create documentary short films. Students explore issues related to autism and disability while gaining exposure to observational, interview-based, and participatory documentary shooting and editing techniques. Letter grading.

M166. Health-Care Ethics. (4) (Same as Society and Genetics M166.) Lecture, three hours; discussion, one hour. Consideration of critical ethical concepts as they apply to health-care practice, medical decision-
making, and medical technology development and use. Consideration of concepts drawn from philos-
ophy, literature and culture, and political history in-
corporate ideas of human dignity, rights, charity, mercy, and justice. Examination of how concept of human dignity should structure health-care decisions such as physician-aided dying or selective abortion; proper relationship between history and concept of human rights and distribution of medical resources; how political and ethical category equality should structure development and use of gene editing techniques; and how concept of patient au-
tonomy relates to political concept of liberty or freedom; how to evaluate good life, or what philoso-
phers call flourishing, in medical treatment decisions for individuals or development of therapies. P/NP or letter grading.

M171. Philanthropy: Confronting Challenges of Serving Disabled. (5) (Same as Honors Collegium M171.) Lecture, three hours. Enforced requisites: Coreuse 101 or 101W. Study of history, philosophy, and

M172. Care Work: Disability Justice and Health Care. (2) (Same as Nursing M172.) Lecture, one hour; discussion, one hour. Exploration of nature, history, models, and propositions of care, care work, disability, disability justice movement, and health care. Consideration of intersections, interdependence, and complexities of formal and informal care webs and care economies between caregivers and receivers, which includes kin, advocates, disability communities, and health professionals. Use of multi-media, scholarly texts, and theoretical frameworks from disability justice, disability studies, film, gender studies, health, labor studies, law, nursing, and public policy to investigate the concepts of care and care work. Letter grading.

M172XP. Care Work: Disability Justice and Health Care. (3) (Same as Nursing M172XP) Seminar, one hour. Corequisite course M172. Exploration of nature, history, models, and propositions of care, care work, disability, disability justice movement, and health care. Consideration of intersections, interdependence, and complexities of formal and informal care webs and care economies between caregivers and receivers, which includes kin, advocates, disability communities, and health professionals. Use of multi-media, scholarly texts, and theoretical frameworks from disability justice, disability studies, film, gender studies, health, labor studies, law, nursing, and public policy to investigate the concepts of care and care work. Emphasis on community engagement with observational and collaborative interaction and learning in governmental, non-profit, community-based organizations, or health-care networks of disability care. Letter grading.

M183. Identity and Mental Illness. (5) (Same as Honors Collegium M183 and Society and Genetics M183.) Seminar, three hours. Exploration of relationship between identity and mental illness through different approaches to nature and treatment of mental disorder, from biomedical accounts of brain-based pathology (and identity) to Mad Pride movement emphasis on mental diversity. Enduring philosophical questions regarding personal identity, consciousness, selfhood and mind-body relationship are investigated through consideration of conditions such as dissociative identity disorder, trauma, psychosis, autism, or depression. P/NP or letter grading.

187. Special Topics in Disability Studies. (4) Lecture, one hour; discussion, two hours (when scheduled). Variable topics in one area within disability studies. May be repeated for credit with topic and/or instructor change. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

191. Variable Topics Senior Research Seminars: Disability Studies. (5) Seminar, three hours. Enforced requisite: course 101 or 101W. Designed for advanced junior/senior Disability Studies minors. In-depth study of major themes in disability studies research. Themes vary by instructor and term. Students pursue independent research related to course theme, with guidance from instructor, then share and critique other student works in progress. May be repeated for credit with topic change. Letter grading.

M191F. Topics in Gender and Disability. (5) (Same as Gender Studies M191F.) Seminar, three hours. In-depth study of major themes in disability studies and gender studies. Themes vary by instructor and term. Students pursue independent research related to course theme, with guidance from instructor, then share and critique other student works in progress. May be repeated for credit with topic change. Letter grading.

194. Capstone Research Seminar. (2) Seminar, two hours. Enforced requisite: course 195CE. Required of students pursuing Disability Studies minor. Integration of off-campus work with academic theories and concepts within field of disability studies. Students report on their internship experiences and analyze relationship between their internship and issues of policy, ethics, systemic responses to community needs, or personal and intellectual transformations. Students identify one faculty mentor and develop proposal for required capstone research project. Letter grading.

195CE. Community and Corporate Internships in Disability Studies. (4) Tutorial, to be arranged; fieldwork, eight to 10 hours. Limited to juniors/seniors. Internship in corporate, governmental, or nonprofit setting coordinated through Center for Community Engagement. Students complete weekly written assignments, attend biweekly meetings with graduate student instructor, and write final research paper. Faculty mentor and graduate student instructor construct series of reading assignments that examine issues related to internship site. May be repeated for credit with consent of Center for Community Engagement. No more than 8 units may be applied toward major; units applied must be taken for letter grade. May not be applied toward concentration distribution requirements. Individual contract with supervising faculty member required. Letter grading.


198A-198B. Honors Research in Disability Studies. (2–4) Tutorial, one hour. Enforced requisite: course 101 or 101W. Course 198A is enforced requisite to 198B. Limited to juniors/seniors. Required capstone course to Disability Studies minor for students pursuing College Honors. Development and completion of honors thesis or comprehensive research project under direct supervision of faculty mentor. May be repeated for credit. Individual contract required. In Progress (198A) and letter (198B) grading.

198C. Honors Research in Disability Studies. (2 to 8) Tutorial, one hour. Limited to juniors/seniors. Development and completion of honors thesis or comprehensive research project under direct supervision of faculty member. May be repeated for credit. Individual contract required. Letter grading.

199A-199B. Directed Research in Disability Studies. (2–4) Tutorial, one hour. Enforced requisite: course 101 or 101W. Course 199A is enforced requisite to 199B. Limited to juniors/seniors. Required capstone course to Disability Studies minor. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. In Progress (199A) and letter (199B) grading.

199C. Senior Project in Disability Studies. (2 to 8) Tutorial, one hour. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. Letter grading.

Graduate Course

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate,
Overview
The disciplines of geology, geochemistry, geophysics, paleobiology, and space physics are concerned with the structure and evolution of the solar system, Earth, and life: essentially, the physical environment and its interaction with biota. These studies entail the application of fundamental physics and chemistry to a broad subject area stretching from astronomy at one extreme to biology at the other. Areas that are emphasized in the Department of Earth, Planetary, and Space Sciences include isotope and trace element analyses, petrology and mineralogy, sedimentology, paleobiology, and organic geochemistry, structural geology and tectonophysics, seismology, the Earth’s interior, planetary physics, and space plasmas.

Career Prospects
The variety of techniques applied lead to several concentrations within the three main disciplines. Students completing their studies with a BS or MS degree usually are employed by industry. Many are employed in environment-related activities; others are involved in mineral or oil exploration or in construction. Students attaining the PhD degree are usually employed by universities or government and industrial research groups.

The Bachelor of Arts program in Earth and Environmental Science is intended to provide a broad background in Earth sciences that is especially appropriate for students intending to become K through 12 teachers in Earth, physical, or life sciences. It may also be of interest to students who plan careers in business, dentistry, environmental sciences, government, journalism, law, medicine, or public health. Those who intend to become professional geologists, geochemists, or geophysicists and/or to continue into graduate studies in Earth or space sciences are urged to pursue one of the BS degrees.

Undergraduate Majors
Earth and Environmental Science BA
Capstone Major
The Earth and Environmental Science major is a designated capstone major. Students are required to use skill and knowledge sets from previous coursework to complete a field-based research project from conception to written report. Projects must be placed into context within the current state of understanding, and results are presented at a research symposium or published as a brief report.

Learning Outcomes
The Earth and Environmental Science major has the following learning outcomes:

- Use of skills and knowledge set from coursework
- Definition of research methodology and data
- Placement of project into context of current state of understanding
- Completion of research project from conception to written report
- Oral presentation at a research symposium, or brief published report, of field experience results

Entry to the Major
Transfer Students
Transfer applicants to the Earth and Environmental Science major with 90 or more quarter units (60 semester units) must have completed one introductory Earth sciences course with laboratory, one general chemistry course with laboratory for majors, and one calculus course. One introductory biology course (evolution) with laboratory, a second general chemistry course, and one calculus-based physics course with laboratory are recommended.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements
Preparation for the Major
Required: Earth, Planetary, and Space Sciences 1 (or any course from Earth, Planetary, and Space Sciences 3 through 17 or Clusters 70A); one course from Earth, Planetary, and Space Sciences 51, 61, or M71; Chemistry and Biochemistry 14A, 14B, and 14BL, or 20A, 20B, and 20L; Life Sciences 7B or another introductory organismic biology course; Mathematics 3A and 3B, or 31A and 31B; Physics 1A or 5A.

The Major
Required: Two courses from Earth, Planetary, and Space Sciences 103A, 103B, 111, 112; one capstone 199 research course in the senior year; four additional upper-division courses from Earth, Planetary, and Space Sciences other than M187, and 189 through 199; two courses from Geography 101, M102, M103, 116, 120, M126, M131, 136.

Policies
Preparation for the Major
Each course must be passed with a minimum grade of C-.

Engineering Geology BS
Capstone Major
The Engineering Geology major is a designated capstone major. Students are required to use skill and knowledge sets from previous coursework to complete a field-based research project from conception to written report. Projects must be placed into context within the current state of understanding, and results are presented at a research symposium or published as a brief report.

Learning Outcomes
The Engineering Geology major has the following learning outcomes:

- Use of skills and knowledge set from coursework
- Definition of research methodology and data
- Placement of project into context of current state of understanding
- Completion of research project from conception to written report
- Oral presentation at a research symposium, or brief published report, of field experience results

Entry to the Major
Transfer Students
Transfer applicants to the Engineering Geology major with 90 or more quarter units (60 semester units) must have completed one introductory Earth sciences course with laboratory, one general chemistry course with laboratory for majors, and one year of calculus. A second general chemistry course and one course of calculus-based physics with laboratory are recommended.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements
Preparation for the Major
Required: Three courses from Earth, Planetary, and Space Sciences 1 (or any course from Earth, Planetary, and Space Sciences 3 through 17 or Clusters 70A), 51, 61, M71; Chemistry and Biochemistry 20A, 20B, 20L; Civil and Environmental Engineering 20; Mathematics 31A, 31B, 32A, 33A; Physics 1A, 1B, 1C, 4A, 4BL. Recommended: Mathematics 2B.

The Major
Required: Earth, Planetary, and Space Sciences 103A, 103B, 111, 112, 136A, 139; four courses selected from Civil and Environmental Engineering 108, 120, 121, 125, 129L, 150, 151, C15B; two capstone field research courses (Earth, Planetary, and Space Sciences 121, 121F).

Policies
Preparation for the Major
Each course must be passed with a minimum grade of C-.
Geology BS

Capstone Major

The Geology major is a designated capstone major. Students are required to use skill and knowledge sets from previous coursework to complete a field-based research project from conception to written report. Projects must be placed into context within the current state of understanding, and results are presented at a research symposium or published as a brief report.

Learning Outcomes

The Geology major has the following learning outcomes:
- Use of skills and knowledge set from coursework
- Definition of research methodology and data
- Placement of project into context of current state of understanding
- Completion of research project from conception to written report
- Oral presentation at a research symposium, or brief published report, of field experience results

Entry to the Major

Transfer Students

Transfer applicants to the Geology major with 90 or more quarter units (60 semester units) must have completed one introductory Earth sciences course with laboratory, one calculus course, and one general chemistry course with laboratory for majors. A second calculus course and a second general chemistry course are recommended.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major

Required: Earth, Planetary, and Space Sciences 103A, 103B, 111, 112; two capstone field research courses (121, 121F); five additional 100-level Earth, planetary, and space sciences courses (except Earth, Planetary, and Space Sciences M187, and 189 through 199).

Students may opt to take courses from the following groups.

Computational Geosciences: Earth, Planetary, and Space Sciences 136A, 150, M171

Geobiology: Earth, Planetary, and Space Sciences CM114A, CM114B, 116, M118

Geochemistry: Earth, Planetary, and Space Sciences 103C, C106, C107, C109, C113, 152, 153

Planetary science: Earth, Planetary, and Space Sciences 136A, C143, 155, C179

Surface processes: Earth, Planetary, and Space Sciences 136A, C143, 150, C162, 165

Tectonics/Structural Geology: Earth, Planetary, and Space Sciences 119, 133, 136A, 165

Honors Program

The honors program in geology is intended to provide exceptional students an opportunity for advanced research and study under the tutorial guidance of a faculty member.

Students must complete a minimum of two terms (8 units) of Earth, Planetary, and Space Sciences 198 leading to the preparation of a satisfactory honors thesis.

Policies

Preparation for the Major

Each course must be passed with a minimum grade of C–.

Honors Program

Requirements for admission to candidacy are the same as those required for admission to the Honors Programs of the College of Letters and Science. Qualified students wishing to enter the program must submit a completed application form to the departmental honors committee near the end of their junior year. Honors in geology are awarded at graduation to those students who have a cumulative grade-point average of 3.5, have completed at least 90 graded units at the University of California, and have completed a minimum of two terms (8 units) of Earth, Planetary, and Space Sciences 198 leading to the preparation of a satisfactory honors thesis. Students demonstrating exceptional ability are awarded highest honors.

Geophysics BS

Capstone Major

The Geophysics major is a designated capstone major. Students are required to use skill and knowledge sets from previous coursework to complete a field-based research project from conception to written report. Projects must be placed into context within the current state of understanding, and results are presented at a research symposium or published as a brief report.

Learning Outcomes

The Geophysics major has the following learning outcomes:
- Use of skills and knowledge set from coursework
- Definition of research methodology and data
- Placement of project into context of current state of understanding
- Completion of research project from conception to written report
- Oral presentation at a research symposium, or brief published report, of field experience results

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Entry to the Major

Transfer Students

Transfer applicants to the Geophysics major with 90 or more quarter units (60 semester units) must have completed one introductory Earth sciences course with laboratory, one general physics course with laboratory for majors, and one year of calculus. A third calculus course and a second calculus-based physics with laboratory course are recommended.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major

Required: Earth, Planetary, and Space Sciences 51, 61, M71, and one course from 1 (preferred) through 15; Mathematics 31A, 31B, 32A, 32B, 33A, 33B; Physics 1A, 1B, 1C, 4AL, 4BL.

The Major

Required Core: Earth, Planetary, and Space Sciences 136A, 171, one capstone field research course (136C), one course from 152, 153, 154, 155; Physics 105A, 105B, 110A, 110B, 131.

At least three courses from one of the following areas are also required: (1) applied geophysics—Earth, Planetary, and Space Sciences 111, 112, 122, 136B, M140, 150, 152, (2) marine geophysics—courses 119, 122, 136B, M140, 150, 153, (3) planetary geophysics—courses M140, 150, 153, 154, 155, (4) solid earth geophysics—courses 119, 122, 136B, M140, 150, 152, or (5) space physics—Atmospheric and Oceanic Sciences C170, Earth, Planetary, and Space Sciences 136B, M140, 154, 155, Physics M122. Any course used to satisfy an area requirement cannot also be applied toward the core requirements listed above.

Honors Program

The honors program in geophysics is intended to provide exceptional students an opportunity for advanced research and study under the tutorial guidance of a faculty member.

Students must complete a minimum of two terms (8 units) of Earth, Planetary, and Space Sciences 198 leading to the preparation of a satisfactory honors thesis.

Policies

Preparation for the Major

Each course must be passed with a minimum grade of C–.

The Major

Substitutions of equivalent courses from engineering or other physical sciences departments must be approved by the undergraduate adviser.

Honors Program

Requirements for admission to candidacy are the same as those required for admission to the Honors Programs of the College of Letters and Science. Qualified students wishing to enter
the program must submit a completed application form to the departmental honors committee near the end of their junior year. Honors in geophysics are awarded at graduation to those students who have a cumulative grade-point average of 3.5, have completed at least 90 graded units at the University of California, and have completed a minimum of two terms (8 units) of Earth, Planetary, and Space Sciences 198 leading to the preparation of a satisfactory honors thesis. Students demonstrating exceptional ability are awarded highest honors.

**Undergraduate Minors**

**Earth and Environmental Science Minor**

In the Earth and Environmental Science minor students study the interaction of the solid Earth, oceans, and atmosphere with human activities. The minor provides background in Earth sciences that is especially appropriate for students intending to become K through 12 teachers in Earth, physical, or life sciences. It may also be of interest to students who plan careers in business, dentistry, environmental sciences, government, journalism, law, medicine, or public health.

**Admission**

To enter the minor, students must have an overall grade-point average of 2.0 or better.

**The Minor**

**Required Lower-Division Courses (9 units):**

- Earth, Planetary, and Space Sciences 1 (or any course from Earth, Planetary, and Space Sciences 3 through 17 or Clusters 70A), and one course from Earth, Planetary, and Space Sciences 51, 61, or M71; or two courses from Earth, Planetary, and Space Sciences 51, 61, or M71.

**Required Upper-Division Courses (20 units minimum):**

- Five 100-level Earth, planetary, and space sciences courses (except Earth, Planetary, and Space Sciences M187, and 189 through 199).

**Policies**

A minimum of 20 upper-division units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

**Geology Minor**

Geology is the study of the surface of the Earth and the rocks and processes that created it. Field methods, interpretation of rocks, and modern plate-tectonic models are emphasized, with the goals of finding valuable or hazardous materials and inferring geologic history. These skills are valuable in engineering, urban planning, and environmental and resource studies.

**Admission**

To enter the Geology minor, students must have an overall grade-point average of 2.0 or better.

**The Minor**

**Required Lower-Division Courses (8 or 9 units):**

- Earth, Planetary, and Space Sciences 1 (or any course from Earth, Planetary, and Space Sciences 3 through 17 or Clusters 70A), and one course from Earth, Planetary, and Space Sciences 51, 61, or M71; or two courses from Earth, Planetary, and Space Sciences 51, 61, or M71.

**Required Upper-Division Courses (22 units):**

- Two courses from Earth, Planetary, and Space Sciences 103A, 103B, 111, 112, and three additional 100-level Earth, planetary, and space sciences courses (except Earth, Planetary, and Space Sciences M187, and 189 through 199).

**Policies**

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

**Geophysics and Planetary Physics Minor**

Classical physics, supported by field data, mathematics, and computing, is used to understand diverse processes from ocean circulation and earthquakes to the formation of planets and the flow of particles and electromagnetic fields in space. These skills are valuable in environmental, engineering, and resource studies and more broadly in any kind of career that requires quantitative analysis.

**Admission**

To enter the Geophysics and Planetary Physics minor, students must have an overall grade-point average of 2.0 or better.

**The Minor**

**Required Lower-Division Courses (8 or 9 units):**

- Earth, Planetary, and Space Sciences 1 (or any course from Earth, Planetary, and Space Sciences 3 through 17, 51, 61, or Clusters 70A, M71).

**Required Upper-Division Courses (20 units):**

- Earth, Planetary, and Space Sciences 136A, M171, and three courses from M140, 152, 153, 154, 155.

**Policies**

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

**Graduate Majors**

**Geochemistry MS, CPhil, PhD**

**Requirements**

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

**Geology MS, CPhil, PhD**

**Requirements**

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.
Geophysics and Space Physics MS, PhD

Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

**Planetary Science MS, PhD**

Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

**Earth, Planetary, and Space Sciences**

**Lower-Division Courses**

1. Introduction to Earth Science. (6) Lecture, three hours; laboratory, two hours; field days. Not open to students with credit for or currently enrolled in course 100, English 13A, or equivalent. Study of Earth materials; nature and interpretation of geologic evidence; study of geologic processes; historical aspects of geology. Mandatory field trips introduce students to solving of geologic problems in field. P/NP or letter grading.

2. Geologic Hazards. (4) Lecture, two hours; laboratory, one hour; one field day. Study of volcanic processes, earthquakes, and floods; discussion of landforms and processes involved; discussion of natural and human-induced hazards. P/NP or letter grading.

3. Environmental Geology of Los Angeles. (4) Lecture, three hours; discussion, two hours; field trips. Geologic hazards and natural resources of greater Los Angeles region. Topics include Los Angeles geologic hazards such as earthquakes, landslides, and floods; Southern California oil fields; gold and gem mining in region; local beach processes; and Los Angeles water resource problems. Field trips to San Andreas fault, California aqueduct, active landslides, and historic gold mines. P/NP or letter grading.

4. Metamorphic Petrology. (5) Lecture, two hours; laboratory, three hours; five field days. Interpretation of metamorphic rocks, mineralogical composition, and stabilizing geologic and thermodynamic conditions. Enforced requisite: course 103A. P/NP or letter grading.

5. Physical Geology. (3) Lecture, three hours. Introduction to geology, basic geologic principles and terminology, rock and mineral identification, and formation and distribution of igneous, sedimentary, and metamorphic rocks. P/NP or letter grading.

6. Earthquakes. (5) Lecture, three hours; laboratory; one hour; one field day. Causes and effects of earthquakes. Plate motion, frictional faulting, earthquake instability, wave propagation, earthquake damage, and other social effects. Hazard reduction through earthquake forecasting and earthquake-resistant design. P/NP or letter grading.


11. Natural Disasters. (5) Lecture, three hours; discussion, one hour; one field day. Global urbanization together with historical demographic population shift to coastal areas, especially around Pacific Ocean’s Ring of Fire, and increasing large population of this planet’s human population at risk due to earthquakes, volcanoes, and tsunamis. Global climate change combines with variety of geologic processes to create enhanced risks of major natural disasters. P/NP or letter grading.

15. Blue Planet: Introduction to Oceanography. (5) Lecture, three hours; laboratory, two hours; not open to students with credit for or currently enrolled in course 106, Environmental Science; study of Earth’s oceans, weather, and climate. Enforced requisite: course 51. P/NP or letter grading.

17. Dinosaurs and Their Relatives. (5) Lecture, three hours; laboratory, two hours; one optional field trip. Designed for nonmajors. Study of dinosaurs and their history. History of life on Earth as revealed through fossil record. P/NP or letter grading.

20. Natural History of Southern California. (5) Lecture, two hours; laboratory, three hours; five field weekends. Identification, distribution, diversity of native plants and communities; identification and interpretation of rocks, minerals, and geologic features; and historic geologic and biologic processes and history of Earth’s global ocean system. P/NP or letter grading.

51. Geologic Maps. (4) Lecture, two hours; laboratory, three hours; five field days. Enforced requisite: course 1. Topographic and geologic mapping in field. Interpretation of mapped geologic units in laboratory. P/NP or letter grading.

52. Physical Geology. (3) Lecture, three hours. Study of rock formations and geologic structures through field trips, discussion, and homework assignments. P/NP or letter grading.

54. Geology of Exotic Rocks. (4) Lecture, two hours; laboratory, three hours; ten field trips. Introduction to exotic rocks. Origin, identification, and classification. P/NP or letter grading.

55. Isotopes in Geology. (4) Lecture, three hours; laboratory, two hours; field trips. Study of isotopes as tools for geologic time and space. Origin of elements and their isotopes; distribution and abundance of elements and their isotopes; distribution and use of elements and their isotopes. P/NP or letter grading.

Stable isotopes as indicators of environment and paleoclimate. Concurrently scheduled with course C209. P/NP or letter grading.

111. Stratigraphic and Field Geology. (6) Lecture, three hours; laboratory, three hours; fieldwork, eight hours per week. Enforced requisites: courses 61, 112. Principles of stratigraphy; geologic mapping of selected area; preparation of geologic report. Letter grading.

111G. Field Geology. (2 to 4) Lecture, two hours; laboratory, three hours; fieldwork, one day per week. Designed for graduate students. Geologic mapping, principles of stratigraphy, structural geology, and map interpretation, with laboratory work.

112. Structural Geology. (5) Lecture, three hours; laboratory, six hours. Requisites: courses 1, 61. Recommended: course 51. Planar and linear structures at different scales in sedimentary, metamorphic, and igneous rocks. Theories of plates, plate tectonics, classification, and kinematic and dynamic analysis. Deformation, strength, fracture, and rheological properties of rocks. P/NP or letter grading.

C113. Biological and Environmental Geochemistry. (4) Lecture, three hours. Requisites: Chemistry 14A and 14B (or 20A and 20B), Mathematics 3A, 3B, and 3C (or 31A and 31B). Recommended: at least one lower-division course in Earth, planetary, and space sciences course. Intended for junior/senior life and physical sciences students. Study of chemistry of Earth's surface environment and interplay between biology, human activity, and geology. Introduction to origin and composition of Earth, including atmosphere, crust, and hydrosphere. Examination of how these reservoirs are affected by biological cycles and feedbacks to biological evolution; local and long-term movements of biologically important elements like carbon, nitrogen, and phosphorus. Concurrently scheduled with course C213. P/NP or letter grading.

CM114A. Aquatic Geomicrobiology: Metabolisms. (4) (Formerly course C114A.) (Same as Atmospheric and Oceanic Sciences CM114A.) Lecture, three hours. Recommended requisite: course C107 or Atmospheric and Oceanic Sciences M105. Study of fundamental geomicrobiological metabolic processes and biogeochemical reactions occurring in aquatic systems and how these processes interact with environment. Metabolisms include photoautotrophic (anoxic and oxygenic photosynthesis), chemoheterotrophic (fermentation and respiration of organic matter), phototrophic (organic matter degradation with light), and chemotrophic (iron, nitrogen, manganese, methane, methanogenesis, fermentation) processes. Study of microbial communities in diverse environments, including critical geosciences literacy at local, state, and national levels.

120. Ruby Colloquium: Major Advances in Earth, Planetary, and Space Sciences. (4) Lecture, two hours; discussion, two hours. Enforced requisites: Mathematics 1A, 1B, 2A, or equivalent. Lecture that can be extracted from each. Interpretation of deposition model from complex sedimentary structures and textures, and how these processes drive element cycling on Earth. Concurrently scheduled with course C226. P/NP or letter grading.

123. Geosciences Outreach. (4) Lecture, two hours; discussion, two hours; field days. Recommended requisites: at least three college-level life sciences or physical sciences courses. Introduction to pedagogical approaches and methods used in geosciences community to educate demographically diverse populations, including K-12 through higher-education audiences and general public. Focus on development of motivational and public communication skill sets as practiced at outreach events and demonstrations, including communication of science in multifaculty settings. Active participation required in minimum of three scheduled outreach events over course of term, providing perspective and basis for follow-up discussions on critical geosciences literacy at local, state, and national levels.

125. Volcanoes. (4) Lecture, three hours; laboratory, three hours; field trip(s). Requisite: course 1. Recommended requisite: course 103A, Physics 1A or 1AH or 6A. Types of volcanism. Physics of magma chambers, volcanic plumbing, explosive and effusive eruptions as illustrated by historical examples. Practical methods of volcano monitoring, with field trip. P/NP or letter grading.

C126. Advanced Petrology. (4) Lecture, three hours; laboratory, three hours; field trips. Enforced requisite: course 103A. Understanding genesis of igneous rocks based on geochemical, tectonochemical, and other geologic evidence and principles. Concurrently scheduled with course C226. P/NP or letter grading.

133. Historical and Regional Geology. (4) Lecture, three hours; discussion, two hours; field trips. Requisite: course 61. Recommended requisite: course 112. Principles of historical geology. Physical evolution of Earth, especially North America. One area of Earth to be investigated in detail, with emphasis on its geologic evolution through time. Letter grading.

136A. Applied Geophysics. (4) Lecture, three hours; laboratory, three hours; course M71; Mathematics 3A, 3B, and 3C, or 31A, 31B, and 32A; Physics 1A, 1B, 4AL, and 4BL, or 5A and 5B. Methods and techniques of geophysical exploration. Energy waves, seismic ray theory, reflection and refraction, seismic interpretation, basic earthquake source theory, and introduction to magnetic fields and electrical resistivity. P/NP or letter grading.

136B. Applied Geophysics. (4) Lecture, three hours; laboratory/field trips, six hours. Preparation: knowledge of MATLAB. Enforced requisite: course 136A. Principles and techniques of exploration for mineral deposits and underground water, and geophysical methods for predicting, searching for, and mapping deposits. Methods include self potential, resistivity, induced polarization, electromagnetics, magnetotellurics, magnetics, P/NP or letter grading.

139. Engineering and Environmental Geology. (4) Lecture, three hours; discussion, one hour. Requisites: course 1 or 100. Recommended: course 111. Principles and practice of soil mechanics. Engineering in light of geologic conditions, recognition, prediction, and control of subsidence, landslides, and other geologic as- sociated with underground disposal of liquids and solid wastes. P/NP or letter grading.


C143. Advanced Physical Sedimentology. (4) Lecture, three hours; fieldwork, three hours. Requisites: 103B, 111, or equivalent. Advanced topics related to sediments, sedimentary rocks, and information that can be extracted from each. Interpretation of depositional environment from complex sedimentary structures and textures, with lecture component and builds on previous sedimentology basics. Concurrently scheduled with course C243. P/NP or letter grading.


152. Physics of Earth. (4) Lecture, three hours; discussion, one hour. Requisites: Mathematics 33A, Physics 1C (or 1CH). The Earth system. Atmosphere, ocean, hydrosphere, biosphere, atmosphere; origin and evolution of planetary atmospheres; geophysical, chemical, and biological processes of Earth's interior; atmospheric circulation and the greenhouse effect; atmospheric and oceanic circulation systems. P/NP or letter grading.

154. Solar Terrestrial Physics. (4) Lecture, three hours; discussion, one hour. Enforced requisite or corequi- site: Physics 10A. Particle and electromagnetic emis-
sions from sun under quiet and under disturbed condi-
tions. Solar wind. Magnospheres and ionospheres of
Earth and other planets. Geomagnetic phenomena and au-
tomation. P/NP or letter grading.

155. Planetary Physics. (4) Lecture, three hours; dis-
cussion, one hour. Requisites: Mathematics 31A, 31B,
32A, Physics 1A, 1B, and 1C (or 1AH, 1BH, and 1CH).
Formation of solar nebula; origin of planets and their
satellites; and meteorites. Celestial mechanics and
mechanics; physics of planetary inte-
riors, surfaces, and atmospheres. P/NP or letter grading.

M156. Introduction to Plasma Science and Engi-
eering. (4) Lecture, two hours; labora-
tory, two hours. Enforced requisites: Mathematics
31B, Physics 1B. Recommended: course 71, Com-
puter Science 31, Physics 110B, Program in Com-
puting 104. Star formation; search for extraterrestrial intelligence
(SETI) is based on number of astronomical, mathe-
matical, statistical, and computational principles. Cov-
erage of fundamental concepts in these disciplines in
context of SETI. Communication: extraterrestrial; extra-
solar planetary systems; radio astronomy, including
wave propagation and dispersion; signal processing,
including sampling theory and Fourier transforms;
random processes, including Gaussian and Poisson
statistics, and algorithm development. Design of ob-
servational program, acquisition of telescopic data,
development of algorithms to analyze data, and
writing of report on results. Concurrently scheduled
with course C279. P/NP or letter grading.

M18. Careers in Earth System, Environment,
and Space Sciences. (1) Same as Atmospheric and Oce-
nic Sciences M187 and Environment M187.) Sem-
ar, one hour. Examination of the role of science in
understanding and addressing grand challenges in cli-
mate, earth and environment, and space exploration
through seminars given by scientists, engineers, man-
agers, and policy makers. Meets in person and
online. Crounse, McFadden, and student members of
the National Academy of Science, Space Science and
Technology, and industry. Includes tour of National Aeronautics
and Space Administration (NASA) Jet Propulsion Lab-
aratory (JPL). Students engage speakers on science, career
advice, opportunities for undergraduate internships, and building fulfilling careers. P/NP
grading.

184. Special Topics in Earth, Planetary, and Space
Sciences. (4) Lecture, three hours; labora-
tory, to be arranged. Departmentally sponsored experimental or temporary coursework, such as those taught by visiting faculty mem-
bers, P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three
hours. Limited to 20 students. Designed as adjunct
undergraduate lecture course. Exploration of topics in
greater depth through supplemental readings, papers,
or other activities and led by lecture course instructor. May be applied toward honors credit for eligible stu-
dents. Honors content noted on transcript. P/NP or
letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours.
Limited to students in College Honors Program. De-
gined to align undergraduate research across course.
In

1M17. Advanced Computing in Geosciences. (4)
(Formerly numbered 171.) (Same as Atmospheric and Oce-
nic Sciences M171.) Lecture, four hours. En-
forced requisites: course M71, Mathematics 3A, 3B, and
3C (or 31A and 31B). Use of high level computer
language to program microcontrollers to acquire labo-
atory-style experimental data. Missfit modeling and
quantitative comparisons of acquired data sets and theory.
Foci on modeling from fundamental equations.
Examples, experiments, and exercises from dis-
ciplines within geosciences. P/NP or letter grading.

CM173. Earth Process and Evolutionary History. (6)
(Same as Ecology and Evolutionary Biology CM173.)
Lecture, four hours; laboratory, three hours. Requi-
sites: Chemistry 14A, 14B (or 20A, 20B), Life Sciences
1, 2, 3, and 4, or 7A, 7B, and 7C (or 7A and introduc-
tory course in Life Sciences). Exploration of relation-
ship between physical processes, such as tectonics and cli-
mate, and how they affect surface and impact biology of
Earth. Study of evolution of universe, Earth, and life,
with integration of history of science, including Dar-
vian evolution and plate tectonics revolutions. Study
of formation of matter offers tools to understand geo-
logic process of climate and ecology of Earth. Past cli-
mate changes affected future human-be-

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199. Directed Research or Senior Project in Earth,
Planetary, and Space Sciences. (2 to 8) Tutorial, two
hours. Limited to juniors/seniors. Supervised indi-
vidual research or investigation under guidance of fac-
tory mentor. Culminating paper or project required. May
be repeated for credit. Individual contract re-
quired. P/NP or letter grading.

Graduate Courses

200A. Introduction to Geophysics and Space Phys-
ics I: Solid Earth and Planets. (4) Lecture, three
hours. Requisites: Physics 105A, 110A, 112, Evolu-
tion, chemistry, and heat balance of oceans and at-
omospheres; molecular spectra, radiative transfer, and
planetary observations; dynamics of oceans and at-
omospheres. S/U or letter grading.

200B. Introduction to Geophysics and Space Phys-
ics II: Oceans and Atmospheres. (4) Lecture,
three hours. Requisites: Physics 105A, 110B, 112, 131;
Evo-
lution, chemistry, and heat balance of oceans and at-
omospheres; molecular spectra, radiative transfer, and
planetary observations; dynamics of oceans and at-
omospheres. S/U or letter grading.

200D. Introduction to Geophysics and Space Phys-
ics III: Plasmas—Aeronomy and Interplanetary Mid-
dium. (4) Lecture, three hours. Requisites: Physics
105A, 110B, 112, 131. Solar surface features, heating
and cooling of corona and plasma; magnetic fields,
interaction of solar wind with Earth, magnetospheric phenomena. S/U or letter grading.

200D. Planetary Surfaces. (4) Lecture, three hours.
Introduction to basic physical processes (both exog-
enic and endogenic) shaping solid surfaces in solar
system and description of their optical and thermo-
physical properties, with emphasis on simple physics-
based approach. Discussion of current literature. S/U
or letter grading.

200E. Planetary Origins and Evolution. (4) Lecture,
four hours. Designed for graduate students who are
interested in origins of planetary systems and history of
solar system. Open to advanced undergraduate students with consent of instructor. Provides back-
ground needed to understand and/or participate in re-

193A-193B-193C. Current Research in Earth, Plane-
tary, and Space Sciences. (1–1–1) Seminar, one
hour. Limited to graduates. Study of current topics in
Earth, planetary, and space sciences, including
teaching group meeting, one to

194. Research Topics in Earth, Planetary, and
Space Sciences. (1) Lecture group meeting, one
to three hours. Designed for departmental students par-
ticipating in research group. Discussion of current re-
search in research specialty of faculty
member teaching course. May be repeated for credit. P/NP
grading.

198C. Honors Contracts. (1) Tutorial, three hours.
Limited to students in College Honors Program. De-
sign to align undergraduate research across course.
In

203. Numerical Methods for Geosciences. (6) Lec-
ture, four hours. Preparation: knowledge of program-
ing language. Requisite: Mathematics 33B. Compu-
tational precision and algorithms, linear algebra, non-
linear equations, functional approximation, integration,
ordinary and partial differential equations, spectral
and finite element methods, parallel computing. Sample
programming exercises from Earth and space sci-
cenes. P/NP or letter grading.

205. Inverse Theory and Data Interpretation. (4)
Lecture, three hours. Requisites: Mathematics 115A,
170A, 170B, 171; Inverse modeling—deter-
mine the physical meaning of observed data, including
estimation of random errors and nonuniqueness. Emphasis on linear and quasi-linear problems; nonlinear problems also discussed. Tools used include matrix theory, quadratic forms, orthog-

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programming exercises from Earth and space sci-
cenes. P/NP or letter grading.

205. Inverse Theory and Data Interpretation. (4)
Lecture, three hours. Requisites: Mathematics 115A,
170A, 170B, 171; Inverse modeling—deter-
mine the physical meaning of observed data, including
estimation of random errors and nonuniqueness. Emphasis on linear and quasi-linear problems; nonlinear problems also discussed. Tools used include matrix theory, quadratic forms, orthog-
al rotations, statistics, principal axis transformation
C206. Physical Geochemistry. (4) Lecture, three hours. Prerequisites: course 107 or Atmospheric and Oceanic Sciences 105B. Study of fundamental geochemical and biochemical reactions occurring in aquatic systems and how these processes interact with environment. Metabolism of microorganisms (biogenic and oxygenic photosynthesis), chemolithotrophic (fermentation and respiration of organic matter), photolithotrophic (organic matter degradation with light), and chemosynthetic (nitrogen, methane, and sulfur oxidation) pathways. Introduction of principals of bioenergetics (adenosine triphosphate production, Gibbs free energy, chemiosmosis, thermodynamic calculations) and biogeochemical fractionation. Concurrently scheduled with course CM114A. S/U or letter grading.

CM214B. Aquatic Geobiogeochemistry: Environments, Evolution, and Systematics. (4) Lecture, three hours. Prerequisite: course CM237B. Lecture, three hours. Recommended requisite: course CM214A. Broad overview of aquatic geobiogeochemical processes in diverse environments (estuaries, wetlands, mudflats, cold seeps, hydrothermal vents, deep biosphere), and how these processes drive element cycling on Earth. Concurrently scheduled with course CM114B. S/U or letter grading.

M217. Molecular Evolution. (4) (Same as Ecology, and Evolutionary Biology M231.) Lecture, two hours; discussion, two hours. Series of advanced topics in molecular evolution, with special emphasis on molecular phylogenetics. Topics may include nature of genome, neutral evolution, molecular clocks, concerted evolution, molecular systematics, statistical tests, and phylogenetic algorithms. Themes may vary from year to year. May be repeated for credit. S/U or letter grading.

219. Planetary and Orbital Dynamics. (4) Lecture, four hours. Planetary rotations, satellite orbits, and tidal dissipation; planetary orbital system; resonance effects and mean orbital coupling; planetary rings. S/U or letter grading.

220. Principles of Paleobiology. (4) Lecture/discussion, three hours. Limited to graduate science students. Emphasis on questions in genetic and physical sciences students with consent of instructor. Current and classic problems in paleobiology, with emphasis on interdisciplinary problems involving aspects of biology, geology, organic geochemistry, and cosmology. Content varies from year to year. May be repeated for credit. S/U or letter grading.

221. Field Geology. (4) Lecture, one hour; discussion, one hour; fieldwork, 10 days. Enforced requisite: course 121F. Planning, execution, and presentation of field studies. Introduction to geologic mapping projects at professional level. Resolution of problems in Southern California geology from synthesis of new and published research. Field area varies from year to year. May be repeated for credit. S/U or letter grading.

222. Introduction to Seismology. (4) Lecture, three hours. Types of seismic waves; travel-time seismology; epicenter location; amplitude variations; seismograph theory; explosion seismology; seismics; focal conditions; surface wave analysis; microseisms and tsunamis. S/U or letter grading.


225. Physics and Chemistry of Planetary Interiors. (4) Lecture, four hours. Chemical compositions of Earth and planets; high-pressure and temperature effects, phase transition; phase equilibria; variations of density and temperature with depth; thermal and compositional evolution. S/U or letter grading.

C226. Advanced Petrology. (4) Lecture, three hours; laboratory, three hours; field trips. Required: course 103A. Designed for graduate students. Understanding genesis of igneous rocks based on geological, tectonic, and other chemical and physical data. Required of students majoring in geology and petroleum engineering. S/U or letter grading.

227. Mars. (4) Lecture, three hours. Limited to graduate students. Results of recent and ongoing missions to Mars are revising many aspects of our understanding of planet and its history. Study highlights major revolutions in thinking about planet, and provides comprehensive overviews as well as current controversies related to Mars’ core and magnetism, thermal evolution and volcanism, geology and cratering history, volatiles and climate, atmosphere and interactions with space environment, and potential pre-biological and biological history. S/U or letter grading.

M229. Planetary Atmospheres and Climates. (4) (Same as Atmospheric and Oceanic Sciences M229.) Lecture, three hours. Enforced requisite: Physics 1C. Planetary atmospheric structure and composition, radiative transfer, and climate dynamics. Topics include origin and evolution of atmospheres, paleoclimate of Earth and Mars, atmospheric thermodynamics, planet-planet radiative transfer, climate dynamics, climate forcings/feedbacks, bifurcation, and climate hysteresis. S/U or letter grading.

230. X-Ray Crystallography. (4) Lecture, three hours; laboratory, three hours. Required: course 51. Point, translation, and space group symmetry, diffraction of X-ray, reciprocal lattice theory, single crystal X-ray methods, diffraction symmetry and elementary crystal structure analysis. S/U or letter grading.

231. Crystal Chemistry and Structure of Minerals. (4) Lecture, three hours; laboratory, three hours. Required: course 51. Bonding, interatomic configurations, polyatomic transformations, isomorphism, thermal and positional disorder; survey of structures of common minerals, and relation of physical and chemical properties to crystal structure. S/U or letter grading.


236. Current Research in Geochronology. (1–1–1) Seminar, one hour. Limited to graduate students. Overview of current research in Earth and planetary science. May be repeated for credit. S/U grading.

M237. How to Write and Publish Scientific Papers. (4) (Same as Atmospheric and Oceanic Sciences M237.) Lecture, three hours. Preparation and presentation: planning to prepare or in the process of preparing manuscripts. Introduction to process of scientific manuscript writing and publishing. Offers insights into fun and frustration of manuscript writing, important rules for manuscript structuring and scientific language, and advice on how to deal with review process. Students gain familiarity with general principles of the manuscript publishing process. Addresses different stages of manuscript writing and publishing by answering when are data ready for publishing, where to publish, how to structure manuscript, best way to present data, how to properly get out message, which writing ethics to consider, how to effectively use citation program, how to communicate with reviewers and editors, and efficient ways to manage coauthors. S/U or letter grading.
238. Metamorphic Petrology. (4) Lecture, three hours; laboratory, six hours. Preparation: one introductory petrology and petrography course. Interpretation of metamorphic rocks in light of observation, theory, and experiment. Geological relations, petrographic evidence, metamorphic zoning, thermodynamics of phase equilibria, projections, chromatic relations, processes, use of piezobienferring haloes, Rayleigh depo- nent mineralogy, and metamorphic, environment, applica- tions to metamorphism. Laboratory study of representative metamorphic rocks and suites of rocks selected to illustrate topics discussed in lectures. S/U or letter grading.

240. Space Plasma Physics. (4) Lecture, three hours; requisite: course 200C or Physics 210A. Physics of plasmas in space, including treatments based on magnetohydrodynamics, kinetic, thermal, phenomena of solar or solar-like stars, solar magnetic fields, wave particle instabilities. S/U or letter grading.


242. Sandstone Petrology. (4) Lecture, two hours; laboratory, four hours. Requisite or corequisite: course C141. Petrographic study of sandstones, with em- phasis on textural characteristics, petrofacies, and paleoecologic reconstructions. S/U or letter grading.

243. Advanced Physical Sedimentology. (4) Lecture, three hours; fieldwork, three hours. Requisites: courses 103B, 111, or equivalent. Advanced topics re- lated to sediments, sedimentary rocks, and informa- tion that can be extracted from each. Interpretation of depositional environment from complex sedimentary structures and textures. Includes field and laboratory component, building on previous sedimentary log bai- sics. Concurrently scheduled with course C143. S/U or letter grading.

244. Tectonics of Sedimentary Basins. (4) Lecture, two hours; discussion, two hours; field trips. Requi- sites: courses 103B, 111, or equivalent. Course 941. Plate tectonic settings of sedimentary basins. Field analysis, stratigraphy, paleoenvironments, sedi- mentology, and related subjects in context of plate- tectonic controls on basin evolution. S/U or letter grading.

245A-245B-245C. Current Research in Geology. (1–1–1) Seminar, one hour. Limited to graduate Earth, planetary, and space sciences students. Seminars presented by staff, outside speakers, and graduate students on current research in tectonics. May be re- peated for credit. S/U grading.

246. Advanced Structural Geology. (4) Lecture, three hours; discussion, two hours; field trips. Requis- ites: courses 103B, 111, 118. Principles of field geology; structure, crystal chemistry, phase equilibria, and petrogen- esis. S/U or letter grading.

251. Seminar: Mineralogy. (4) Seminar, three hours. Examination of groups of mineral families (e.g., feldspars), integrating such aspects as crystal struc- ture, crystal chemistry, phase equilibria, and petrogenes is. S/U or letter grading.

252. Seminar: Geochemistry. (4) Seminar, two hours; discussion, two hours. Phase equilibria under crustal conditions, chemistry of ocean waters, recent and an- cient sediments, structure and chemistry of upper mantle, basaltic rocks, magmatic differentiation, and cos- moschemistry. S/U or letter grading.

253. Seminar: Petrology. (4) Seminar, three hours. Problems of igneous or metamorphic petrology; methods of evaluating physical conditions of meta- morphism; diffusion in mineralogic systems; origin of ultramafic rocks and problems of mantle; element fractionation among coexisting phases; other current subjects in field. S/U or letter grading.

255. Seminar: Structural Geology and Tectonics. (4) Seminar, three hours. Flow and fracture in Earth’s crust from microscopic to continental scale and in ex- periments. Examples may include metamorphic, fer- ranes, glaciers, plutors, volcanoes, and consolidated or unconsolidated sediments. Modern concepts of oceanic basins; processes leading to segregation of continental-type rocks. S/U or letter grading.

256. Seminar: Geophysics. (4) Seminar, three hours. Seismology, geophysical probing, electromagnetic prospecting, Selected topics in Earth physics. Content varies from year to year. May be repeated for credit. S/U or letter grading.

257. Seminar: Paleontology. (4) Seminar/discussion, three hours. Advanced topics in paleobiology, biostra- tigraphy, paleoecology, and paleobiogeography, with emphasis on relations to other disciplines. S/U or letter grading.

259. Seminar: Paleotectonics. (4) Seminar, two hours; discussion, two hours. Requisite: course 244. Basin evolution and paleogeography, with emphasis on Pha- nerozic of Western U.S. S/U or letter grading.

260. Field Seminar. (2 to 6) Seminar, three hours. Advanced topics in paleobiology, petrology, and paleontologic reconstructions. S/U or letter grading.

261. Topics in Magnetospheric Plasma Physics. (4) Lecture, four hours. Lectures, discussions, and exer- cises on specific advanced topics in magnetospheric plasma physics. Previous courses examined magnetic storms, magnetospheric substorms, coronal holes, substorms, auroral substorms, and polarization. S/U or letter grading.


M283A. Solar System Magnetohydrodynamics. (4) (Same as Atmospheric and Oceanic Sciences M250A.) Lecture, three hours. Requisite: Atmospheric and Oceanic Sciences C205A. Derivation of MHD equations based on conservation principles and Ohm’s law. Syllabus includes overview of previous research and new methodologies in MHD. Digital analysis and interpretation of near-infrared, thermal-infrared, and microwave data from satellites and aircraft. Field observation of study site in California desert for testing hypotheses during week between Winter and Spring Quarters. Concur- rently scheduled with course C162. S/U or letter grading.


265. Instrumentation, Data Processing, and Data Analysis in Space Physics. (6) Lecture, four hours. Problems of current interest in space physics. Experimental techniques, models of data from spacecraft and other instruments. Data processing, display, and archiving. Time-series analysis techniques, including filtering, Fourier series, eigenanalysis, and power spectra. S/U or letter grading.

273. Earth Process and Evolutionary History. (6) (Same as Ecological and Evolutionary Biology CM228.) Lecture, four hours; laboratory, three hours. Requi- site: Chemistry 14A, 14B or 20A, 20B, Life Sciences 1, 2, 3, 4, and 7A, 7B, and 7C or (7A and introduc- tory course in geology). Exploration of relationship be- tween physical processes, such as tectonics and cli- mate, and how they affect surface and impact biology of Earth. Study of evolution of universe, Earth, and life, with integration of history of science, including Dar- winian evolution and plate tectonics revolutions. Study of formation of matter offers tools to understand geo- logical process of climate and ecology of Earth. Pal- timate change to examine expected future human-influ- enced climate. Consideration of major events in his- tory of Earth. Deep time evolution, and paleontology, genetics, and geochemistry are integrated to recon- struct past events. This reveals how Earth processes shaped life and how life shaped Earth. Concurrently scheduled with course C179. S/U or letter grading.

C279. Search for Extraterrestrial Intelligence: Theo- ry and Applications. (4) Lecture, two hours; labora- tory, two hours. Enforced requisites: Mathematics 31B, Physics 1B. Recommended: course 71, Com- puter Science 31, Physics 110B, Programming. C10A. Search for extraterrestrial intelligence (SETI) is based on number of astronomical, mathe- matical, statistical, and computational principles. Cov- erage of fundamental algorithms and study of context of SETI: abundance and architecture of extra- solar planetary systems; radio astronomy, including wave propagation and dispersion; signal processing, including sampling theory and Fourier transforms; random processes, including Gaussian and Poisson statistics, and algorithm development. Design of ob- servational program, acquisition of telesopic data, development of algorithms to analyze data, and writing of report on results. Concurrently scheduled with course C179. S/U or letter grading.

M285. Origin and Evolution of Solar System. (4) (Same as Astronomy M285.) Lecture, four hours. De- nomical problems of solar system; chemical, evalua- tions from geochronology, meteorites, and solar at- mosphere; nucleosynthesis; solar origin, evolution, and volatility; solar system, solar system processes, formation of planets and satellite systems. Content varies from year to year. May be repeated for credit. S/U grading.

M286A-286B-286C. Current Research in Planetary Science. (1–1–1) Seminar, one hour. Limited to graduate Earth, planetary, and space sciences students. Seminars presented by staff, outside speakers, and graduate students on current interest concerning moon, planets, and mete- orites. May be repeated for credit. S/U grading.


289. Seminar: Fluid Dynamics. (2) Seminar, one to two hours. Problems of current interest in fluid dy- namics, with emphasis on geophysical applications. May be repeated for credit. S/U grading.

OVERVIEW

The Master of Arts (MA) degree in East Asian Studies offers an interdisciplinary and highly flexible program of study. With opportunities to take a range of advanced courses in the social sciences and humanities, students are able to tailor their programs to emphasize particular methodological and disciplinary approaches and to focus in depth on the region as a whole and on its dynamics in particular countries. Coursework and language offerings range from the ancient to the contemporary and allow students to prepare for a broad range of individual needs and career interests with a thorough grounding in the history and culture of the region.

UNDERGRADUATE STUDY

Information on the undergraduate major in Asian Studies and minor in East Asian Studies can be found in the International and Area Studies section.
all influence human decisions on matters ranging from conservation of the environment to advancement of medical science.

**Undergraduate Study**

The Bachelor of Science (BS) degrees combine essential background studies in mathematics, chemistry, and physics with a general introduction to all of the biological subjects, as well as advanced in-depth exposure to some of them. Students may earn a BS degree in one of three different majors within the department: Biology (general biology); Ecology, Behavior, and Evolution; and Marine Biology. The majors build on similar lower-division introductory courses and differ primarily in the upper-division requirements. The Biology major is designed for students who desire exposure to a wide range of biological subjects. The remaining two majors—Ecology, Behavior, and Evolution and Marine Biology—provide more specialized instruction and strong preparation for employment or subsequent graduate study in the respective disciplines.

**Graduate Study**

The Master of Science (MS) and Doctor of Philosophy (PhD) degrees provide opportunities for advanced, concentrated study. The MS degree requires, in addition to specified coursework, completion of either a comprehensive examination or the performance of original research culminating in a thesis. The PhD degree requires independent and innovative research that ultimately results in a dissertation.

**Undergraduate Majors**

**Biology BS**

The Biology major is designed for students with a broad interest in biology who desire to pursue careers in a wide range of biological and related fields. It provides students with excellent background preparation for postgraduate training in medicine and other health sciences, in tracks leading to academic and public service careers in biology, in biological industries, and even in nonbiological careers such as business, agriculture, and law. Emphasis is on breadth of training to expose students to all levels of modern biology.

**Learning Outcomes**

The Biology major has the following learning outcomes:

- Broad understanding of basic biology concepts and principles across different levels of biological organization, from molecules to ecosystems
- Effective oral and written communication of scientific information
- Demonstrated understanding of the processes involved in new knowledge generation, including the scientific method, data collection, and data analysis
- Ability to critically evaluate scientific concepts presented in diverse media, from scientific articles to the popular press

**Entry to the Major**

**Transfer Students**

Transfer applicants to the Biology major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of general biology with laboratory for majors, preferably equivalent to Life Sciences 7A, 7B, and 7C, one year of calculus, one year of general chemistry with laboratory for majors, and one semester of organic chemistry with laboratory. A second semester of organic chemistry or one year of calculus-based physics is strongly recommended but not required for admission.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

**Requirements**

**Preparation for the Major**

**Life Sciences Core Curriculum**

Required: Chemistry and Biochemistry 1A, 1B, 14BL, 14C, and 14D, or 20A, 20B, 20L, 30A, 30AL, and 30B; Life Sciences 7A, 7B, 7C, 23L; Life Sciences 30A, 30B, and 40 or Statistics 13, or Mathematics 3A, 3B, 3C, and Life Sciences 40 or Statistics 13, or Mathematics 31A or 31AL, 31B, 32A, and Life Sciences 40 or Statistics 13; Physics 1A, 1B, 1C, 4AL, and 4BL, or 5A, 5B, and 5C.

**The Major**

Students must take two courses from each principle:

**Evolution and Genetics:** Anthropology 120, 124P, 124Q, 124S, 128P, Earth, Planetary, and Space Sciences 116, Ecology and Evolutionary Biology 103, 108, 109, 109L, 110, 111, 112, 113A, 113AL, 114A, 115, 117, 118, 120 (not open for credit to students with credit for course 185), 121, 126, 129, 130, 135, 136, 140, 143, 144, 144L, M145, C146, 149, 150, 150L, 160, 171, CM173, C174, 175, 181, 184, 185 (not open for credit to students with credit for course 120), 186, Life Sciences 107, Microbiology, Immunology, and Molecular Genetics CM156, 158, Molecular Cell, and Developmental Biology CM156, CM156, Society and Genetics M142

**Information Flow:** Anthropology 124P, 128P, Chemistry and Biochemistry B100, 153A, 166, Ecology and Evolutionary Biology 100, 100L, 116, 120 (not open for credit to students with credit for course 185), 121, 122, 125, 126, 129, 132, 134B, C135, 136, 137, 143, C146, 149, 150, 150L, 153, 156, 162, 162L, 168, 170 (not open for credit to students with credit for Physiology Science 166), 171, C172, C174, 176, M175, C179, 180A, 180B, 183, Life Sciences 107, Microbiology, Immunology, and Molecular Genetics 100L and 101 (must be taken together to satisfy requirement), 103AL, 103BL, 109AL, 109BL, 123, 132, CM156, 158, C185A, Molecular, Cell, and Developmental Biology 100, 138, 143, 144, C150, 150AL, CM156, 158, 168, M175A, M175B, M175C, 187AL, Neurosciences M101A, M101B, M101C, 102, Physiological Science M106, 111A, 111B, CM123, 124, C126, 127, 128, 130, 136,
138, 140, C144, M145, 146, 147, 149, C152, 154, 155, 165, 166 (not open for credit to students with credit for Ecology and Evolutionary Biology 170), 167, 173, 174, 175, M176, 177, M180A, M180B, M180C


Field Biology

The department offers three quarter-long programs of advanced courses in field biology: the Field Biology Quarter (FBQ), the Marine Biology Quarter (MBQ), and the joint Field Marine Biology Quarter (FMBQ). These programs focus on the biology of organisms living in their natural environments, emphasize independent student research projects, and take place at field sites near the UW campus and in the Pacific Northwest. The course composition varies somewhat from year to year, but each program always carries 16 units of course credit. The Field Biology Quarter involves some combination of Ecology and Evolutionary Biology 113B, 114B, 118, 124A, 124B, 125, C126, 132, 134B, and 151B. The Marine Biology Quarter includes some combination of Ecology and Evolutionary Biology 102, 106, 123A, 123B, 147, 148, 163, 164, 165, and 182. The Field and Marine Biology quarters may occur during fall, winter, or spring quarter, depending on location and faculty participation. To participate, students must enroll in all courses in the respective program. Participants in both programs are selected by personal interview. Information and applications are available in the Undergraduate Advising Office.

Honors Program

An overall grade-point average of 3.4 and a 3.4 in the major at graduation and who have successfully completed Ecology and Evolutionary Biology 198A and 198B. Students do not need to apply for departmental honors. All students are reviewed for honors.

Computing Specialization

Majors may select a specialization in Computing by (1) satisfying all the requirements for a bachelor’s degree in the specified major, (2) completing Program in Computing 10A, 10B, 10C, 30, and 60, and (3) completing one course from Computer Science CM186, Psychology 186A, or 186B. A grade of C- or better is required in each course, with a combined grade-point average in the specialization of at least 2.0. Students must petition for admission to the program and are advised to do so after completing Program in Computing 10B (petitions should be filed in the Undergraduate Advising Office). Students graduate with a bachelor’s degree in their major and a specialization in Computing.

Policies

Preparation for the Major

Each core curriculum course must be passed with a grade of C- or better, and all courses must be completed with an overall grade-point average of 2.0 or better. Students receiving a grade below C- in two core curriculum courses, either in separate courses or repetitions of the same course, are subject to dismissal from the major.

The Major

Each Life Sciences core curriculum course must be passed with a grade of C- or better, and all courses must be completed with an overall grade-point average of 2.0 or better. Students receiving a grade below C- in three core curriculum courses, either in separate courses or repetitions of the same course, are ineligible for the Biology major.

A minimum of five upper-division courses for the major must be taken within the Ecology and Evolutionary Biology Department.

A minimum of two laboratory courses must be taken, including a minimum of one upper-division ecology and evolution biology laboratory course.

Courses applied to major requirements may be applied to one core principle only. Courses listed in multiple principles may not be applied simultaneously.

Field quarter instructors determine to which core principle courses apply (four requirements).

A maximum of 8 units of the Ecology and Evolutionary Biology 198 series or 4 units of Ecology and Evolutionary Biology 199 may be applied toward the major. The principal investigator determines to which principle the course applies, after the student’s work and quarterly requirements are complete. The course must be for a minimum of 4 units. Credit for 199 courses from other departments may not be applied.

Each course applied toward requirements for the major must be taken for a letter grade. Courses applied to upper-division major requirements must have a minimum of 4 units. Courses with fewer than four units may be taken together to satisfy one course requirement. A maximum of one course requirement may be satisfied. A 6-unit course counts as one course on the requirements for the major.

With consent of the instructors and department, a maximum of 4 units of 200-level courses may be applied toward major requirements.

Ecology, Behavior, and Evolution BS

The Ecology, Behavior, and Evolution major is appropriate for students preparing for graduate study in ecology, behavior, and evolution or for employment in areas such as environmental biology, animal behavior, conservation, teaching, museum work, and governmental positions dealing with environmental issues of wide importance and impact. A strong field component involving study in terrestrial and marine locales
such as coastal, desert, and mountain environments in California and the Southwest and in the Neotropics is required.

Capstone Major

The Ecology, Behavior, and Evolution major is a designated capstone major. Students apply theory and technique learned through four years of classroom and laboratory experience to their own independent projects. The main purpose of the capstone is to provide a unique field experience that involves designing and executing a research project. Students are aided in the scientific process of learning about a new ecosystem, developing relevant questions, designing conceptually based projects, troubleshooting, and completing the work, and writing a publication-ready manuscript. They are also expected to exhibit strong teamwork, problem-solving, and communication skills.

Learning Outcomes

The Ecology, Behavior, and Evolution major has the following learning outcomes:

- Demonstrated broad knowledge of fundamental concepts of ecology, behavior and evolution, or marine biology acquired through coursework
- Development of skills in library research, data interpretation, synthesis, and scientific writing
- Use of current primary scientific literature, including database searches, identification of appropriate sources, and reading and understanding papers
- Understanding of key questions and hypotheses, interpretation of results and conclusions, and discrimination of quality through critique
- Use of knowledge gained for conception and execution of student project that includes self-developed questions and hypotheses, design of appropriate theoretical or empirical/experimental approach, execution of that approach, and analysis and interpretation of data
- Communication of original scientific work to colleagues and mentors through capstone scientific paper
- Demonstrated communication skills through oral or poster presentation at a symposium
- Display of strong teamwork and problem-solving skills

Entry to the Major

Transfer Students

Transfer applicants to the Ecology, Behavior, and Evolution major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of general biology with laboratory for majors, preferably equivalent to Life Sciences 7A, 7B, and 7C, one year of calculus, one year of general chemistry with laboratory for majors, and one semester of organic chemistry with laboratory. A second semester of organic chemistry or one year of calculus-based physics is strongly recommended but not required for admission.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major

Life Sciences Core Curriculum

Required: Chemistry and Biochemistry 14A, 14B, 14BL, 14C, and 14D, or 20A, 20B, 20L, 30A, 30AL, and 30B; Life Sciences 7A, 7B, 7C, 23L; Life Sciences 30A, 30B, and 40 or Statistics 13, or Mathematics 3A, 3B, 3C, and Life Sciences 40 or Statistics 13A or 31AL, 31B, 32A, and Life Sciences 40 or Statistics 13: Physics 1A, 1B, 1C, 4AL, and 4BL, or 5A, 5B, and 5C.

The Major

Students must complete the following courses:

1. At least 4 morphology and systematics units (one course) from Ecology and Evolutionary Biology 101, 103, 105, 110, 111, 112, 113A, 113AL, 114A, 115, 117, 130, 140, 144L, M157, or 184.
2. At least 4 physiology units (one course) from Ecology and Evolutionary Biology 117, M157, 162, 162L, 170, Physiological Science 165, or 166. Students with credit for Ecology and Evolutionary Biology 170 cannot take Physiological Science 166.
3. At least 12 ecology, behavior, and evolution units (three courses) from Anthropology 128P, Ecology and Evolutionary Biology 100, 113A, 113AL, 116, 117, 130, 133, 135, 136, 137, 142, 143, 144, 144L, C146, 245, 240, 245L, 250L, 251A, 252, 254, 255, 257, 260, 265, 267, 268, CM173 (or Earth, Planetary, and Space Sciences CM173), C174, 275, 278 (or Bio-engineering CM186 or Computational and Systems Biology M186 or Computer Science CM186), 183, 184, 185, 186, Life Sciences 107 (students with credit for Life Sciences 4 cannot take Life Sciences 107). Students with credit for Ecology and Evolutionary Biology 120 cannot also take course 185.
4. One capstone field quarter consisting of 12 to 16 units from Marine Biology Quarter (MBQ), join Field Marine Biology Quarter (FMBQ), or pre-approved equivalent (see undergraduate adviser)
5. At least 8 units (two courses) from Anthropology 128P, chemistry (except Chemistry and Biochemistry 188S through 199; Chemistry and Biochemistry 153A and 153L are strongly recommended), Earth, planetary, and space sciences (geology only; except Earth, Planetary, and Space Sciences 188 through 199), ecology and evolutionary biology (except Ecology and Evolutionary Biology 188S through 199), geography (except Geography 188S through 199), and Life Sciences 107 (students with credit for Life Sciences 4 cannot take Life Sciences 107), mathematics (except Mathematics 105A, 105B, 105C, 106, 188S through 199), microbiology (except Microbiology 193A through 199), Molecular, Cell, and Developmental Biology M172, and Developmental Biology M173, or Mathematics 3A, 3B, 3C, and Life Sciences 40 or Statistics 13: Physics 1A, 1B, 1C, 4AL, and 4BL, or 5A, 5B, and 5C.

Field Biology

The department offers three quarter-long programs of advanced courses in field biology: the Field Biology Quarter (FBQ), the Marine Biology Quarter (MBQ), and the Joint Field Marine Biology Quarter (FMBQ). These programs focus on the biology of organisms living in their natural environments, emphasize independent student research projects, and take place at field sites away from the UCLA campus. The course composition varies somewhat from year to year, but each program always carries 16 units of course credit. The Field Biology Quarter involves some combination of Ecology and Evolutionary Biology 113B, 114B, 118, 124A, 124B, 125, C126, 132, 134B, and 151B. The Marine Biology Quarter includes some combination of Ecology and Evolutionary Biology 102, 106, 123A, 123B, 147, 148, 169, 165, and 182. The Field and Marine Biology quarters may occur during fall, winter, or spring quarters, depending on location and faculty participation. To participate, students must enroll in all courses in the respective program. Participants in both programs are selected by personal interview. Information and applications are available in the Undergraduate Advising Office.

Honors Program

An overall grade-point average of 3.4 and a 3.4 in the major are required for graduation with honors. Highest honors are awarded to majors who have a GPA of 3.6 overall and a 3.6 in the major at graduation and who have successfully completed Ecology and Evolutionary Biology 198A and 198B. Students do not need to apply for departmental honors. All students are reviewed for honors.

Computing Specialization

Majors may select a specialization in Computing by (1) satisfying all the requirements for a bachelor’s degree in the specified major, (2) completing Program in Computing 10A, 10B, 10C, 30, and 60, and (3) completing one course from Computer Science CM186, Psychology 186A, or 186B. A grade of C– or better is required in each course, with a combined grade-point average in the specialization of at least 2.0. Students must petition for admission to the program and are advised to do so after completing Program in Computing 10B (petitions should be filed in the Undergraduate Advising Office). Students graduate with a bachelor’s degree in their major and a specialization in Computing.

Policies

Preparation for the Major

Each core curriculum course must be passed with a grade of C– or better, and all courses must be completed with an overall grade-point average of 2.0 or better. Students receiving a grade below C– in two core curriculum courses, either in separate courses or repetitions of the same course, are subject to dismissal from the major.
The Major
A maximum of 8 units of the Ecology and Evolutionary Biology 198 series or 4 units of Ecology and Evolutionary Biology 199 may be applied toward the major. Credit for 199 courses from other departments may not be applied.

Courses offered as part of the Field Biology Quarter (FBQ) are open to all qualified students, but strict priority is given to students who are Ecology, Behavior, and Evolution majors, are graduating seniors, have taken a broad range of ecology, behavior, and evolution coursework, and have maintained a good grade-point average.

With consent of the instructors and department, students may enroll in 200-level courses and apply them toward major requirements.

Each course applied toward requirements for preparation for the major and the major must be taken for a letter grade. Ecology, Behavior, and Evolution majors must earn a C– or better in each course taken as preparation for the major, and at least a 2.0 (C) overall average in all courses applied toward the major. Courses applied to upper-division major requirements must have a minimum of 4 units. A 6-unit course counts as one course on the requirements for the major.

As requisites for the Marine Biology Quarter, students must have a 3.0 overall grade-point average and have taken Statistics 13 or equivalent. Preference for the Marine Biology Quarter is given to Ecology, Behavior, and Evolution and Marine Biology majors. It is strongly recommended that students complete Ecology and Evolutionary Biology 109 and 109L prior to applying for the Marine Biology Quarter. Contact the Undergraduate Advising Office for all requirements for the Marine and Field Biology quarters.

Marine Biology BS
The Marine Biology major is designed for students who wish to specialize in the area of marine sciences. Completion of this major provides students with both an excellent background in biology and specialization in various disciplines such as oceanography, subtidal and intertidal ecology, and physiology of marine organisms. Graduates are well prepared for postgraduate opportunities in the marine sciences, many other areas of biology, and medicine. The major provides valuable field experience with concomitant individual research opportunities in marine biology.

Capstone Major
The Marine Biology major is a designated capstone major. Students apply theory and technique learned through four years of classroom and laboratory experience to their own independent projects. The main purpose of the capstone is to provide a unique field experience that involves designing and executing a research project. Students are aided in the scientific process of learning about a new ecosystem, developing relevant questions, designing conceptually based projects, troubleshooting and completing the work, and writing a publication-ready manuscript. They are also expected to exhibit strong teamwork, problem-solving, and communication skills.

Learning Outcomes
The Marine Biology major has the following learning outcomes:

- Demonstrated broad knowledge of fundamentals of ecology, behavior and evolution, or marine biology acquired through coursework
- Development of skills in library research, data interpretation, synthesis, and scientific writing
- Use of current primary scientific literature, including database searches, identification of appropriate sources, and reading and understanding papers
- Understanding of key questions and hypotheses, interpretation of results and conclusions, and discrimination of quality through critique
- Use of knowledge gained for conception and execution of student project that includes self-developed questions and hypotheses, design of appropriate theoretical or empirical/approximation approach, execution of that approach, and analysis and interpretation of data
- Communication of original scientific work to colleagues and mentors through capstone scientific paper
- Demonstrated communication skills through oral or poster presentation at a symposium
- Display of strong teamwork and problem-solving skills

Entry to the Major
Transfer Students
Transfer applicants to the Marine Biology major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of general biology with laboratory for majors, preferably equivalent to Life Sciences 7A, 7B, and 7C, one year of calculus, one year of general chemistry with laboratory for majors, and one semester of organic chemistry with laboratory. A second semester of organic chemistry or one year of calculus-based physics is strongly recommended but not required for admission.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements
Preparation for the Major
Life Sciences Core Curriculum
Required: Atmospheric and Oceanic Sciences 1 or Earth, Planetary, and Space Sciences 15; Chemistry and Biochemistry 14A, 14B, 14BL, 14C, and 14D, or 20A, 20B, 20L, 30A, 30AL, and 30B; Life Sciences 7A, 7B, 7C, 23L; Life Sciences 30A, 30B, and 40 or Statistics 13, or Mathematics 3A, 3B, 3C, and Life Sciences 40 or Statistics 13, or Mathematics 31A or 31AL, 31B, 32A, and Life Sciences 40 or Statistics 13; Physics 1A, 1B, 1C, 4AL, and 4BL, or 5A, 5B, and 5C.

The Major
Students must complete the following courses:
1. Ecology and Evolutionary Biology 109 and 109L
2. At least 4 laboratory units (one course) from Ecology and Evolutionary Biology 101, 105, 110, 112, 136, 170, or 181
3. At least 4 units of marine organismic biology or physiology (one course) from Ecology and Evolutionary Biology 101 (unless taken under item 2), 105 (unless taken under item 2), 107, 112, 117, 128, 140, 142, 170 (unless taken under item 2), 174, 184, or Physiological Science 166. Students with credit for Ecology and Evolutionary Biology 170 cannot also take Physiological Science 166
4. At least 4 units of ecology and behavior (one course) from Anthropology 128P, Ecology and Evolutionary Biology 100, 116, C119A, C119B, 122, C126, 128, 129, M131 (or Geography M110), 133, 136, 137, 140, 142, 143, C146, 151A, 152, 154, 155, M157, 161, 162, 170, C172, M178 (or Bioengineering CM186 or Computational and Systems Biology M186 or Computer Science CM186). C174, 184
5. At least 4 evolution units (one course) from Anthropology M128S (or Society and Genetics M142), Ecology and Evolutionary Biology 116, 117, 120, 121, 130, 133, C135, 140, 143, 144, 144L, C146, 149, 150, 150L, CM173 (or Earth, Planetary, and Space Sciences CM173, C174, 175, 184, 185, 186, or Life Sciences 107 if credit for Life Sciences 4 cannot take Life Sciences 107). Students with credit for Ecology and Evolutionary Biology 120 cannot also take course 185
6. One capstone field quarter consisting of 12 to 16 units from the Marine Biology Quarter (MBQ) or pre-approved equivalent (see undergraduate adviser)
7. One additional physical, chemical, or geological oceanography course from Atmospheric and Ocean Sciences 102, 103, 104, 105 (or Ecology and Evolutionary Biology M139), 130, Chemistry and Biochemistry 103, 153A, Earth, Planetary, and Space Sciences 100, 116, 119, C141, 153, Ecology and Evolutionary Biology M131 (or Geography M110), 153, 158, 159, Geography 101, M118 (or Atmospheric and Oceanic Sciences M106), 130, 182A, Mechanical and Aerospace Engineering 103, 150A, or Molecular, Cell, and Developmental Biology 172

Field Biology
The department offers three quarter-long programs of advanced courses in field biology: the Field Biology Quarter (FBQ), the Marine Biology Quarter (MBQ), and the joint Field Marine Biology Quarter (FMBQ). These programs focus on the biology of organisms living in their natural environments, emphasize independent student research projects, and take place at field sites away from the UCLA campus. The course composition varies somewhat from year to year, but each program always carries 16 units of course credit. The Field Biology Quarter involves some combination of Ecology and Evolutionary Biology 113B, 114B, 118, 124A, 124B, 125, C126, 132, 134B, and 151B. The Marine Biology Quarter includes some combination of Ecology and Evolutionary Biology 102, 106, 123A, 123B, 147, 148, 163, 164, 165, and 182. The Field and Marine Biology quarters
may occur during fall, winter, or spring quarter, depending on location and faculty participation. To participate, students must enroll in all courses in the respective program. Participants in both programs are selected by personal interview. Information and applications are available in the Undergraduate Advising Office.

Honors Program
An overall grade-point average of 3.4 and a 3.4 in the major are required for graduation with honors. Highest honors are awarded to majors who have a GPA of 3.6 overall and a 3.6 in the major at graduation and who have successfully completed Ecology and Evolutionary Biology 198A and 198B. Students do not need to apply for departmental honors. All students are reviewed for honors.

Computing Specialization
Majors may select a specialization in Computing by (1) satisfying all the requirements for a bachelor’s degree in the specified major, (2) completing Program in Computing 10A, 10B, 10C, 30, and 60, and (3) completing one course from Computer Science CM186, Psychology 186A, or 186B. A grade of C– or better is required in each course, with a combined grade-point average in the specialization of at least 2.0. Students must petition for admission to the program and are advised to do so after completing Program in Computing 10B (petitions should be filed in the Undergraduate Advising Office). Students graduate with a bachelor’s degree in their major and a specialization in Computing.

Policies
Preparation for the Major
Each core curriculum course must be passed with a grade of C– or better, and all courses must be completed with an overall grade-point average of 2.0 or better. Students receiving a grade below C– in two core curriculum courses, either in separate courses or repetitions of the same course, are subject to dismissal from the major.

The Major
Credit for 199 courses from other departments may not be applied. With consent of the instructors and department, students may enroll in 200-level courses and apply them toward major requirements. Each course applied toward requirements for preparation for the major and the major must be taken for a letter grade. Marine Biology majors must earn a C– or better in each course taken as preparation for the major, and at least a 2.0 (C) overall average in all courses applied toward the major. Courses applied to upper-division major requirements must have a minimum of 4 units. A 6-unit course counts as one course on the requirements for the major. As requisites for the Marine Biology Quarter, students must have a 3.0 overall grade-point average and have taken Statistics 13 or equivalent. Preference for the Marine Biology Quarter is given to Ecology, Behavior, and Evolution majors, and Marine Biology majors. Students must complete Ecology and Evolutionary Biology 109 and 109L prior to participating in the Marine Biology Quarter. Contact the Undergraduate Advising Office for all requirements for the Marine and Field Biology quarters.

Undergraduate Minors

Conservation Biology Minor
The Conservation Biology minor is designed for students who wish to augment their major program of study with courses addressing issues central to the conservation and sustainability of biodiversity and natural ecosystem processes. The minor seeks to provide students with a greater depth of experience and understanding of the role that science can play in developing conservation policy.

Admission
To enter the minor, students must (1) be in good academic standing (2.0 grade-point average or better), (2) have completed Life Sciences 7B and Ecology and Evolutionary Biology 100 with minimum grades of C or better, and (3) submit a petition through Message Center to the Undergraduate Advising Office. All degree requirements, including the specific requirements for this minor, must be fulfilled within the unit maximum set forth by the College of Letters and Science.

Non-life sciences majors wishing to minor in Conservation Biology should be aware that preparation courses in chemistry, life sciences, mathematics, and physics are requisites to some of the upper-division courses accepted for the minor.

The Minor
Required Lower-Division Course (5 units): Life Sciences 7B.

Required Upper-Division Courses (28 units minimum): Ecology and Evolutionary Biology 100, and four to six courses (24 units minimum) from the following (no more than two courses from any discipline): Anthropology 124P, 124Q, 124S, 126P, 126Q, 126R, 129, Community Health Sciences 100, 130, Ecology and Evolutionary Biology 110, 111, 112, 113A, 113AL, 114A, 114B, 114C, 115A, 115B, 117A, 117B, 118A, 118B, 122, M127 (or Environment M102 or Geography M102), 129, M131 (or Geography M110), 140, 142, 143, 144, 144L, C146, 149, 151A, 152, 153, 154, 155, 161, 162L, 162L, 168, C174, 176, 180A, 180B, 183, 184, Geography M102, M103 (or Environment M103), 106, 107, 116, 117, M118 (or Atmospheric and Oceanic Sciences M106), M126 (or Environment M126), M131, 133. Courses completed as part of the Field Biology Quarter and Marine Biology Quarterly may be applied if not taken to fulfill a field quarter requirement; consult with the undergraduate counselors for more information. A maximum of two upper-division geography courses may be applied to the minor.

Policies
A minimum of 20 units applied toward the minor requirements must have a minimum grade of C (2.0) in each and an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Evolutionary Medicine Minor
The Evolutionary Medicine minor is designed for students who wish to augment their major program of study with courses that combine the disciplines of ecology and evolutionary biology, anthropology, psychology, and zoology with medicine to create new paradigms for investigating and understanding disease. The minor provides students with a greater depth of experience and understanding of the integration of evolutionary biology and medical education.

Admission
To enter the minor, students must (1) be in good academic standing (2.0 grade-point average or better), (2) have completed Life Sciences 7B and Ecology and Evolutionary Biology 100 with minimum grades of C or better, and (3) submit a petition through Message Center to the Undergraduate Advising Office. All degree requirements, including the specific requirements for this minor, must be fulfilled within the unit maximum set forth by the College of Letters and Science.

Non-life sciences majors wishing to minor in Evolutionary Medicine should be aware that preparation courses in chemistry, life sciences, mathematics, and physics are requisites to some of the upper-division courses accepted for the minor.

The Minor
Required Lower-Division Course (5 units): Life Sciences 7B.


Required Research Project or Internship (4 units minimum): Ecology and Evolutionary Biology 198A and 198B or 199 or a suitable research internship from another department, and must be taken for letter grades.
Graduate Major

Biology MS, CPhil, PhD

Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Ecology and Evolutionary Biology

Lower-Division Courses

10. Plants and Civilization. (4) Lecture, three hours; discussion, one hour. Basic ecological processes, scientific method, and ecological basis for local and global environmental issues. Major challenges to be faced in this century, including need to find interdisciplinary and collaborative solutions to world’s worsening environmental problems (e.g., global climate change, biodiversity loss, deforestation, pollution, declining water resources, declining fisheries). Environmental literacy to equip students to become leaders in growing green economy and to help forge solutions to current and future environmental crises that threaten natural resource base. P/NP or letter grading.

19. Flat Lux Freshwater Biology. (4) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery. Environmental literacy to equip students to become leaders in growing green economy and to help forge solutions to current and future environmental crises that threaten natural resource base. P/NP or letter grading.

21. Field Biology. (4) Lecture, three hours; discussion, two hours, or field trips, three to four hours. Recommended preparation: Life Sciences 15. Not open for credit to students with credit for course 122 or Life Sciences 1. Introduction to natural history of Western North America, especially Southern California. Classification, distribution, and ecology of common plants and animals. P/NP or letter grading.

25. Living Ocean. (6) Lecture, three hours; laboratory, one hour; field trips, three hours. Not open for credit to students with credit for Earth, Planetary, and Space Sciences 15. Physical and chemical processes that take place in the ocean, with emphasis on their effects on organisms. P/NP or letter grading.

50. Desert Life. (4) Lecture, three hours; laboratory, two hours. Introduction to fundamental structural, physiological, and behavioral features of desert organisms, with special emphasis on deserts of Western North America. P/NP or letter grading.

87. California’s DNA: Field Course. (1) Lecture, one hour; fieldwork, four hours (every other week). Limited to freshmen. Students join CalEdison community science program and do fieldwork to sample soil and sediments in California. Familiarization with University of California natural reserves spanning coast to woodland, and desert to mountains. Analysis of samples for DNA to capture snapshot of local biodiversity. Prepares students for more intensive, related upper-division science course. Guided Saturday field trips or independent trips. Letter grading.

98. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be repeated for credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

98HC. Honors Contracts. (1) Tutorial, three hours. Limited to Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities, and may be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

95. Lower-Division Internship in Biology. (4) Tutorial/fieldwork, three hours per week per unit. Internship course for lower-division students to be supervised by Center for Community Learning, fieldwork site, and faculty adviser. Consult Undergraduate Office for more information. May be repeated for credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

96. Communicating Science: Bringing Complex Concepts to Life. (2) Seminar, three hours. Limited to Ecology and Evolutionary Biology Department majors. Development of tools for research, integrating and presenting complex scientific concepts concisely and effectively. Basic animation techniques and work in groups to illustrate life sciences concepts. How to engage audiences and convey clear messages. Letter grading.

97. Variable Topics in Ecology and Evolutionary Biology. (1 to 4) Seminar, one to four hours. Current issues in research in ecology and evolutionary biology. Consult Schedule of Classes for topics and instructors. May be repeated for credit with consent of instructor. P/NP or letter grading.

97XA. PEERS Freshman Seminar: Succeeding in Science. (1) Seminar, one hour. Limited to students in Program for Excellence in Education and Research in Sciences (PEERS). Series of lectures, workshops, and discussions to enhance student success in sciences by developing critical academic survival skills, acquainting students with practice of science, and highlighting opportunities available to participate in undergraduate research. P/NP grading.

97XB. PEERS Sophomore Seminar: Pathways in Science. (1) Seminar, one hour. Limited to students in Program for Excellence in Education and Research in Sciences (PEERS). Series of lectures and workshops to enhance student success in sciences by acquainting students with practice of science, opportunities available to participate in research as undergraduate students, and preparing students with campus resources. P/NP grading.

97XC. AAP Freshman Seminar: Succeeding in Science Majors and Careers. (1) Seminar, one hour. Limited to science majors in Academic Advancement Program (AAP) who took Mathematics 1 in fall term. Series of lectures, workshops, and discussions designed to enhance student success in sciences by developing critical academic survival skills, acquainting students with campus resources, and preparing students to practice of science, and highlighting opportunities available to participate in research as undergraduate students. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enroll in minimum of 12 units (excluding course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

100. Introduction to Ecology and Behavior. (4) Lecture, three hours; discussion, one hour. Requisite: Life Sciences 7B. Not open for credit to students with credit for course 118, 122, 124A, 124B, 125, C126, 129, 132, 134B, 136, or 151B. Introduction to methods and topics in ecology and behavior. Growth and regulation of populations, organization of communities, niches and interactions, biogeography, and behaviors animals use to find food, choose mates, and interact in social groups. Letter grading.

100L. Introduction to Ecology and Behavior Laboratory. (4) Laboratory, four hours laboratory. Requisite: course 100 (may be taken concurrently). Life Sciences 1 or 7B. Introduction to research methods in ecology and behavior, resulting in independent research proposals to gain understanding of the critical evaluation of research papers, and development of scientific writing skills. Involves work outside and off-campus meetings. To apply this course to the Biology upper-division major laboratory requirement, the corresponding lecture course must be completed with a passing grade. Letter grading.

101. Marine Botany. (6) Lecture, four hours; laboratory, six hours; three to four field trips. Requisite: Life Sciences 1 or 7B. Introduction to biology and ecology of marine plants, including algae, sea grasses, and mangroves, with focus on form and function of marine plants and their ecological role in different marine habitats and ecosystems. Letter grading.


103. Plant Diversity and Evolution. (6) Lecture, three hours; laboratory, three hours; field trip. Requisites: Life Sciences 1 and 4, or 7A and 7B. Introduction to green plant tree of life, with emphasis on using phylogenetic perspective to examine major transitions in plant evolution, including diversification of land plants, vascular plants, seed plants, and currently ecologically dominant flowering plants. Introduction to phylogenetics, providing overview of theory
and methodology to reconstruct and use phylogenetic trees to study organismal evolution. Exploration of 700 million years of plant evolution, with emphasis on morphological and functional aspects, and biogeographical perspectives. Letter grading.

105. Biology of Invertebrates. (6) Lecture, three hours; laboratory/field trips, six hours. Requires: Life Sciences 1 or 7B. Introduction to systematic, evolution, natural history, and physiology of invertebrates. P/NP or letter grading.

106. Experimental Marine Invertebrate Biology. (4 or 6) Lecture, two hours; laboratory, 12 hours. Requires: course 105, Physiological Science 166 (may be taken concurrently), or three hours-credit level, in either as 8-unit quarter-long course or as 4-unit Marine Biology Quarter course. Advanced course of natural history, physiology, biochemistry of invertebrates, with emphasis on independent research and field investigations. P/NP or letter grading.

107. Evolution, Development, and Function of Invertebrate Animals. (6) Lecture, three hours; laboratory, three hours; three weekend field trips. Requires: course 105 or completion of Marine Biology Quarter. Advanced invertebrate biology course exploring evolutionary relationship of animal groups and evolution of marine species, comparative development and developmental genetics of invertebrate form, and function as they relate to marine invertebrates. Letter grading.

108. Biodiversity in Age of Humans. (5) Lecture, two and one-half hours; field experience, one hour; field trips, six to eight hours. Students learn how to use scientific method, ask and answer questions about eDNA, analyze primary literature, and develop professional skills applicable to career. Series of bioactive videos, interactive workshops, and short lectures outside of class set baseline knowledge for problem solving and applied learning in classroom. Letter grading.

109. Introduction to Marine Science. (4) Lecture, three hours; discussion, one hour. Requires: Life Sciences 1 or 7B. Strongly recommended for prospective Marine Biology Quarter students. Introduction to physical and chemical processes of planet oceans. Designed to be integrative, with focus on solving and applied learning in classroom. Letter grading.

110L. Introduction to Marine Science Laboratory. (4) Laboratory, three hours; four field trips. Requires: course 109 or completion of Marine Biology Quarter. Advanced invertebrate biology course exploring evolutionary relationship of animal groups and evolution of marine species, comparative development and developmental genetics of invertebrate form, and function as they relate to marine invertebrates. Letter grading.

111. Advanced invertebrate biology course exploring evolutionary relationship of animal groups and evolution of marine species, comparative development and developmental genetics of invertebrate form, and function as they relate to marine invertebrates. Letter grading.

116. Conservation Biology. (4) Lecture, three hours; discussion, two hours. Requires: Life Sciences 1 or 7B. Not open for credit to students with credit for Environment 121. Study of ecological and evolutionary principles as they apply to preservation of genetic, species, and ecosystem diversity. Discussion sections focus on interactions of science, policy, and economics in conserving biodiversity. Oral and written student presentations on specific conservation issues. Letter grading.

117. Evolution of Vertebrates. (5) Lecture, three hours; laboratory, three hours. Requires: course 109, Life Sciences 1 or 7B. Introductory introduction of mechanisms by which molecular data adapt themselves to their ablative and biotic environments using population, community, and ecological physiology levels of integration. Letter grading.

118. Plant Adaptations. (8) Lecture, one hour; field trip, 10 hours. Requires: course 100. Five-week course offered only as part of Field Biology Quarter. Field-oriented introduction to mechanisms by which vascular plants adapt themselves to their ablative and biotic environments using population, community, and ecological physiology levels of integration. Letter grading.

119A. Mathematical and Computational Modeling in Ecology. (4) Lecture, three hours; discussion, one hour. Requires: Mathematics 3 or 31A. Recommended: courses 100, 102, 122, Life Sciences 1 or 7B, Mathematics 3C. Introduction to modeling dynamics of ecological systems, including formulation and analysis of mathematical models, basic techniques of scientific programming, probability and stochastic modeling, and methods to relate models to data. Examples from ecology but techniques and principles are applicable to other sciences. P/NP or letter grading.

121A. Herpetology Laboratory. (4) Lecture, three hours; discussion, one hour. Requires: Life Sciences 1 or 7B. Familiarization with reptiles and amphibians in their natural habitat. Students carry out supervised research projects, then write up and orally present their results in seminar fashion. Letter grading.

123A-123B. Field Marine Ecology. (4 or 8 each) Lecture, five weeks; laboratory, 15 hours. Requires: courses 123A and 123B taken concurrently. Offered either as 4- or 8-unit field course given off campus as part of Marine Biology Quarter. Survey of current topics in marine ecology, including analysis of primary research literature combined with field study of ecology of marine organisms, populations, communities, and ecosystems. Original research project required. Letter grading. 123A. In residence at research station located outside continental U.S. 123B. In residence at research station located within U.S., including Alaska and Hawaii.

124A-124B. Field Ecology. (4 or 8 each) Lecture, five weeks; laboratory or field trip, 15 hours. Requires: course 100, Life Sciences 1 or 7B. Offered either as 4- or 8-unit field course given off campus as part of Marine Biology Quarter. Survey of current topics in marine ecology, including analysis of primary research literature combined with field study of ecology of marine organisms, populations, communities, and ecosystems. Original research project required. Letter grading. 124A. In residence at research station located outside continental U.S. for part or for duration of term. 124B. In residence at research station located within U.S., including Alaska and Hawaii, for part of or for duration of term.

125. Tropical Animal Communication. (4 or 8) Lecture, three hours; discussion, two hours. Requires: course 100, Life Sciences 1 or 7B. Offered either as 4- or 8-unit course offered only as part of Field Biology Quarter. Animal communication behavior, tropical vertebrate biology, and evolution of information processing systems. Eight-unit course covers same basic lecture material in five to six intensive weeks, followed by extended field trips where students do individual projects in animal communication. Letter grading.

C126. Behavioral Ecology. (4 or 8) Lecture, three hours; discussion, two hours. Requires: course 100, Life Sciences 1 or 7B. Offered either as 4- or 8-unit course offered only as part of Field Biology Quarter. Animal communication behavior, tropical vertebrate biology, and evolution of information processing systems. Eight-unit course covers same basic lecture material in five to six intensive weeks, followed by extended field trips where students do individual projects in animal communication. Concurrently scheduled with course C242. Letter grading.

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chastic models, fitting models to data, sensitivity analysis, presentation of model results, and other topics from current literature. Concurrently scheduled with course C219B. P/NP or letter grading.

120. Evolution. (4) Lecture, three hours; discussion, two hours. Requires: Life Sciences 1, 2, 3, 4, 4X, 23L, or 7A, 7B, 7C, and 23L, Mathematics 3A and 3B (or 31A or Life Sciences 30B). Not open for credit to students with credit for Departmental majors specializing in environmental and population biology. Introduction to mechanisms and processes of evolution, with emphasis on natural selection, mutation, speciation, evolutionary rates, and patterns of adaptation. P/NP or letter grading.

121. Molecular Evolution. (4) Lecture, three hours; discussion, one hour. Requires: Life Sciences 3, 4, and 23L, or 7A and 23L. Molecular biology, with emphasis on evolutionary aspects. DNA replication, RNA transcription, protein synthesis, gene expression, and molecular evolution. Letter grading.

122. Ecology. (4) Lecture, three hours; discussion, two hours. Requires: course 100, Life Sciences 1 or 7B. Designed for departmental majors specializing in environmental and population biology. Introduction to population and community ecology, with emphasis on growth and distributions of populations, interactions between species, and structure, dynamics, and function of communities and ecosystems. P/NP or letter grading.

123A-123B. Field Marine Ecology. (4 or 8 each) Lecture, five weeks; laboratory, 15 hours. Requires: courses 123A and 123B taken concurrently. Offered either as 4- or 8-unit field course given off campus as part of Marine Biology Quarter. Survey of current topics in marine ecology, including analysis of primary research literature combined with field study of ecology of marine organisms, populations, communities, and ecosystems. Original research project required. Letter grading. 123A. In residence at research station located outside continental U.S. 123B. In residence at research station located within U.S., including Alaska and Hawaii.

124A-124B. Field Ecology. (4 or 8 each) Lecture, five weeks; laboratory or field trip, 15 hours. Requires: course 100, Life Sciences 1 or 7B. Offered either as 4- or 8-unit course offered only as part of Field Biology Quarter. Animal communication behavior, tropical vertebrate biology, and evolution of information processing systems. Eight-unit course covers same basic lecture material in five to six intensive weeks, followed by extended field trips where students do individual projects in animal communication. Letter grading.

C126. Behavioral Ecology. (4 or 8) Lecture, three hours; discussion, two hours. Requires: course 100, Life Sciences 1 or 7B. Offered either as 4- or 8-unit course offered only as part of Field Biology Quarter. Animal communication behavior, tropical vertebrate biology, and evolution of information processing systems. Eight-unit course covers same basic lecture material in five to six intensive weeks, followed by extended field trips where students do individual projects in animal communication. Concurrently scheduled with course C242. Letter grading.
125. Soils and Environment. (4) Lecture, three hours; discussion, one hour; field trips. General treatment of soil forming processes, soil classification, pedologic, physiologic, and morphologic properties of soils, and soil management as related to plant growth and distribution. P/NP or letter grading.

125TL. Soils and Environment: Field. (1) (Same as Environment M102L and Geography M102L.) Laboratory, two hours; field excursions. Corequisite: course M127. Investigation of supporting material in course M127, including excavating, describing, and naming soils in field, soil forming processes, geomorphology, and soils. P/NP or letter grading.

128. Plant Physiological Ecology. (5) Lecture, three hours; laboratory, three hours; one two-day field trip. Requisites: Life Sciences 1 or 7B, Physics 1C and 4BL, or 5B or 6C. Study of plant/environment interactions under natural conditions. Transpiration and photosynthesis, leaf temperature, and water movement in soil/plant/atmosphere continuum. Letter grading.

129. Animal Behavior. (4) Lecture, three hours; discussion, two hours. Requisites: course 100, Life Sciences 1 or 7B. Behavioral ecology: Methods and results of evolutionary approaches to study of animal behavior, including foraging strategies, social control of group behavior, cooperation, and social organization. Letter grading.


131. Ecosystem Ecology. (4) (Same as Geography M110.) Lecture, three hours; field trips, Requisite: Geography 1 or Life Sciences 7B. Designed for juniors/seniors. Development of principles of ecosystem ecology, with focus on understanding links between ecosystem structure and function. Emphasis on energy and water balances, nutrient cycling, plant-soil-microbe interactions, landscape heterogeneity, and human disturbance to ecosystems. P/NP or letter grading.

132. Field Behavioral Ecology. (8) Lecture, two hours; laboratory/field trip, 10 hours. Requisites: course 100, Life Sciences 1 or 7B. Recommended: course 129. Five-week course as part of Field Behavior Quarter. Field research in behavioral ecology, emphasizing animal communication. Design and execution of individual and small group field projects during extended field trip. Letter grading.

133. Elements of Theoretical and Computational Biology. (4) Lecture, three hours; discussion, one hour; laboratory, two hours. Requisites: Life Sciences 1, 2, 3, 4, 23L, and Mathematics 3A, 3B, and 3C, or 31A and 31B, or Life Sciences 30B. Strongly recommended: elementary statistics course. Introduction of basic core mathematical ideas and models necessary to understand contemporary ecology and evolutionary biology. Population ecology and growth, Reproduction, population ecology, population genetics, natural selection. P/NP or letter grading.

134. Field Physiological Ecology of Desert Animals. (8) Fieldwork, 15 hours. Requisite: Life Sciences 1 or 7B. Recommended: course 100. Two weeks of off-campus research projects with two-week lecture course (four hours per day) and offered only as part of Field Biology Quarter. Consideration of physiological, behavioral, morphological, and ecological mechanisms desert animals use to enhance their survival in arid habitat. Students carry out supervised research projects, then write up and orally present their results in seminar. Letter grading.


136. Ecological Restoration. (4) Lecture, two and one half hours; laboratory, three hours; three field trips. Requisites: course 100, Life Sciences 1 or 7B. Study of ecosystems that have been degraded by overuse or unnecessary extraction. Course develops foundation of restoration ecology including historical knowledge, reference sites, soil preparation, biodiversity, California natives, succession, disturbances, and best management practices for landscapes. Students learn to identify classic symptoms of unhealthy ecosystem and important metrics to determine if and when ecosystem is recovering. Students evaluate a site in the Los Angeles region in order to develop site and vegetation maps, conduct soil and water tests, and assess overall health of area. Students develop recommendations for restoration plan. Mandatory all-day field trips. Letter grading.

137. Chemical Communication. (4) Lecture, three hours; discussion, one hour. Requisites: Chemistry 14A, 14B, 14BL, 14C, 14CL, and 14D, or 20A, 20B, 20L, 30A, 30AL, 30B, and 30BL, Life Sciences 1, 2, 3, 23L. Chemical signals and communication in organisms which by which organisms communicate. Exploration of how chemical signals are produced, transported, and influence behavior of microbes, plants, and animals. Synthesis of principles and emphasis on applications to cellular biology, physiology, and ecology. P/NP or letter grading.

139. Introduction to Chemical Oceanography. (4) (Same as Atmospheric and Oceanic Sciences M103.) Lecture, three hours; discussion, one hour. Introduces course for physical sciences, life sciences, and engineering majors interested in oceanic environment. Chemical composition of oceans and nature of physical, chemical, and biological processes governing this composition in past and present. Cycles of major and minor oceanic constituents, with focus on those that are most important to life. Trace elements and anions (phosphorus, silicon, and oxygen). Investigation of primary production, export production, remineralization, diagenesis, air-sea gas exchange processes. Letter grading.

140. Biology of Marine Mammals. (4) Lecture, three hours; discussion, one hour. Requisite: Life Sciences 1 or 7B. Examination of evolution, systematics, natural history, anatomy, physiology, and conservation of marine mammals. Overview of phylogeny of eutherian mammals, porpoises, pinnipeds, sirenians, marine otters, and polar bear. Through lectures and readings from recent primary literature, students gain understanding of special adaptations of marine mammals that allow them to inhabit the marine environment. Emphasis on how marine mammals inhabiting the marine environment. Laboratory includes experimental studies of local marine organisms, with emphasis on primary and secondary production and nutrient flux. Letter grading.

netics in most diverse and inclusive of biological sciences. Fields as divergent as medicine and evolution require understanding of fundamental concepts of heredity and individuals 127. Populations. Many important social questions require understanding of genetics for informed decision making. Study of foundations of genetics at level expected of students gain understanding of some social implications of various aspects of genetics, and tools necessary to form informed opinions on these issues. Letter grading.

150L. Principles of Genetics Laboratory. (4) Laboratory, four hours. Corequisite: course 150. Genetics is most diverse and most inclusive of biological sciences. This course utilizes experimental and theoretical methods to explore the mechanisms that determine which species are present or absent from various populations. Experiments used to make discoveries about plant adaptation. Letter grading.

151A. Tropical Ecology. (4) Lecture, one hour; discussion, two hours. Required: Life Sciences 1 or 7B. Broad introduction to biodiversity, community structure, and dynamics and ecosystem function of range of tropical ecosystems. Discussion of subjects such as biogeography, forest structure, plant growth forms, animal communities, herbivory, forest dynamics, and disturbance regimes. P/NP or letter grading.

151B. (BY) Lecture, three hours; fieldwork, five hours. Required: course 100, Life Sciences 1 or 7B. Two weeks of off-campus research projects followed by two-week lecture course and offered as part of the UCLA Biology Quarter. Introduction to biodiversity, community structure, and dynamics and ecosystem function in tropical forest habitat. Letter grading.

152. World Vegetation Ecology and Ecophysiology. (4) Lecture, three hours; discussion, one hour. Requisite: Life Sciences 1 or 7B. Diversity of physiologial and ecological adaptations in biomes of world, explaining distribution and dynamics of world vegetation types. Focus on processes across scales from cells to ecosystem to globe, instrumentation for environmental and ecophysiological measurements, and experiments used to make discoveries about plant adaptation. Letter grading.

153. Physics and Chemistry of Biotic Environments. (4) Lecture, three hours; discussion, one hour. Requisites: Chemistry 14A, 14B, and 14BL (or 20A, 20B, and 20L). Life Sciences 1. Recommended: Life Sciences 1. Chemical and physical principles that are critical to functional responses by organisms to their habitats. Focus is integrative, providing comprehensive training in basic sciences of physics and chemistry to provide training in approaches and instrumentation for making physiological adaptations of marine vertebrates to interface is one of most biologically rich, yet challenging

155. Biological Modeling: Mathematical and Computational Approaches. (5) (Same as Computational and Systems Biology M150.) Lecture, four hours; laboratory, three hours. Required: Life Sciences 7A, 7B, 7C, or 5A. Focus on processes across scales from cells to ecosystem to globe, instrumentation for environmental and ecophysiological measurements, and experiments used to make discoveries about plant adaptation. Letter grading.

156. Introduction to Diversity, Health Disparities, and Environment. (2) Seminar, one hour; discussion, one hour. Required: Life Sciences 7B. Focus on interconnection of health disparities and environment. Seminar includes guest presentations about environmental determinants of health, and panel discussions focused on careers addressing health disparities. Discussion where students deconstruct research talks to better understand science and how research on health disparities is conducted. Entry course for three-quarter UCLA-Howard Hughes Medical Institute Health Disparities program. Letter grading.

158. Field Biology of Marine Fishes. (4) Lecture, five hours; laboratory and fieldwork, 15 hours. Requisites: Chemistry 14A, 14B, and 14BL, or 20A, 20B, 20L, and 30AL. Life Sciences 1, 3, and 23L, or 7A, 7B, and 23L. Highly recommended: course 11. Five-week intensive course offered only as part of Marine Biology Quarter. Survey of higher vertebrates living in marine habitats, including estuarine amphibians, marine reptiles and birds, and marine mammals. Laboratory emphasizes observational and experimental approaches to study of morphology, systematics, ecology, and behavior of local marine birds and mammals. Given off campus at marine science center. Letter grading.


165. Ecological Physiology of Marine Vertebrates. (4) Lecture, five hours; fieldwork, 15 hours. Enforced requisites: course 100, 101B, or 102B. Recommended: Chemistry 14B or 20B and 30AL. Life Sciences 1, 3, 23L. Recommended: Life Sciences 30B or Mathematics 3C or 32A, and Physics 1C and 4BL, or 5C or 6CH. Five-week intensive course offered only as part of Marine Biology Quarter. Introduction to physiological adaptations of marine vertebrates to major physicochemical variables in world oceans and to major marine habitats. Given off campus at marine science center. Letter grading.

166. Biology of Marine-Land Interface. (4) Lecture, five hours; fieldwork, 15 hours. Required: one 100, 101B, or 102B. Recommended: Chemistry 14B or 20B and 30AL. Life Sciences 1, 3, 23L, or 30AL. Life Sciences 1, 3, 23L. Recommended: Life Sciences 30B or Mathematics 3C or 32A, and Physics 1C and 4BL, or 5C or 6CH. Five-week intensive course offered only as part of Marine Biology Quarter. Introduction to physiological adaptations of marine vertebrates to major physicochemical variables in world oceans and to major marine habitats. Given off campus at marine science center. Letter grading.
167. Natural History Collections in Biological Science (4). Lecture: two hours and one half hours; discussion, one hour. Requisite: Life Sciences 7B. Consideration of how natural history collections play vital role in research, learning, and engagement. Topics include history of museum collections; history of naming species; collection curation; collections-based research; decolonization and diversity, equity, accessibility, and inclusion practices; and education and outreach using museum collections. Students learn to curate collections and gain understanding of how collections are used for education, outreach, and research. Letter grading.

167L. Natural History Collections in Biological Sciences Laboratory (4). Laboratory, four hours. Requisite: course 167 (may be taken concurrently). Consideration of how natural history collections play vital role in research, learning, and engagement. Topics include history of museum collections; history of naming species; collection curation; collections-based research; decolonization and diversity, equity, accessibility, and inclusion practices; and education and outreach using museum collections. Students learn to curate collections and gain understanding of how collections are used for education, outreach, and research. Letter grading.

168. Global Change Ecology (4). Lecture, three hours; discussion, one hour. Exploration of physical climate system and its variability, carbon cycle and related biogeoeconomy and ecosystem processes, land-use change, urbanization, and interactions among ecosystems, climate, biosphere, and human societies. Impact of global change on societally relevant issues and concerns. Global change ecology is field at interface between ecological systems and all aspects of environmental change that affect multiple components of globe. Focus on use of observations and models, consideration of multiple scales of change (temporal and spatial), interaction of human behaviors and choices with natural systems, and linkages across different aspects of global change science. Letter grading.

170. Animal Environmental Physiology (6). Lecture, three hours; laboratory, six hours. Requisites: Chemistry 14D, or 30B and 30BL, Life Sciences 1, 2, 3, 4, and 23L, or Mathematics 3C or 32A, Physics 1C and 4BL, or 5B or 23L, or Life Sciences 1, 2, 3, 4, 14D, or 30B and 30BL, Life Sciences 1, 2, 3, 4, or 14D. Not open for credit to students with credit for Physiological Science 166. Designed for Ecology, Behavior, Evolution, and Development majors. Introduction to physiological function (of) animal organs and organ systems, with emphasis on environmental interactions and ecological adaptations. Letter grading.

171. Evolution and Sex (4). Lecture, three hours; discussion, one hour. Requisite: Life Sciences 1 or 7B. Fitness dynamics of reproduction when females and males are in conflict over reproductive decisions, with focus on animals with human examples as appropriate. Emphasis on natural selection thinking, sexual selection, and origins of sexual conflict, including Fisherian sex allocation, evolution of manipulation through deceptive communication, and theory of Darwinian sexual conflict. Letter grading.

176. Ecological Ethics. (4). Seminar, two hours; discussion, one hour. Requisite: Life Sciences 1 or 7B. Debates and discussions on current ethical considerations relevant to fields of ecology, evolution, conservation, and behavior. Letter grading.

177. Practical Computing for Evolutionary Biologists and Ecologists. (4). Lecture, three hours; laboratory, two hours. Requisite: Life Sciences 1 or 7B. Introduction to fundamental skills needed for data analysis, and visualization of large data sets. Basic programming and scripting in Python as well as working in shell, regular expressions, and related topics. Concurrently scheduled with course C234. Letter grading.

M178. Computational Systems Biology: Modeling and Simulation of Biological Systems. (5) (Same as Bioengineering 178 and Systems Biology M186, and Computer Science CM186.) Lecture, four hours; laboratory, two hours; discussion, one hour. Requisites: Life Sciences 30A, 30B, Mathematics 32A or 32T, 33A, and 33B, or Mathematics 31A, 31B, 32A or 32T, 33A, and 33B. Dynamic bio-system modeling and computer simulation methods for studying biological/biomedical processes and systems. Introduction to modeling of linear and nonlinear control system, multicompart- mental, epidemiological, pharmacokinetic, and other biomodeling methods applied to life sciences problems at cellular, tissue, and population levels. Both theory- and data-driven modeling, with focus on translating biomodeling goals and data into dynamical mathematical models, and implementing them for simulation, quantification, and analysis. Numerical simulation, optimization, and parameter identifiability and search algorithms, with model discrimination and analysis and software exercises in PC laboratory assignments. Letter grading.

C179. Communicating Science to Informal Audiences (4). Lecture: two hours; discussion, one hour. Requisites: courses 158, 187. Science communication is essential skill for advancing scientific research and society. Students work collaboratively to communi- cate results of original research using forms (e.g., written paper and/or multimedia presentation) and/or informal (e.g., video, brochure, digital media, etc.) forms of science communication. Students also create interactive communication piece (website, podcast, video) about what they learned through process of research that could be shared with broad audience. Concurrently scheduled with course C237. Letter grading.

190A-190B. Seminars: Biology and Society. (2–4) Seminar, two hours (course 190A) and four hours (course 190B). Investigations and discussions of current socially important issues involving substantial bio- logical considerations, either or both as background for policy and as consequences of policy. May be repeated once for credit with instructor change. Letter grading.

191. Parasitology. (4). Lecture, three hours; laboratory, two hours. Requisites: Life Sciences 1, 3, and 23L, or 7A, 7B, and 23L. Introduction to principles, biology, and evolution of infectiousness, symbiosis, and parasitism, emphasizing protozoan and helminthic parasites, including those of man.


193. Finding Ecological Solutions to Environmental Problems. (4) Seminar, two hours; discussion, two and one half hours. Requisite: course 100. Ecological problem-solving in which students work with teams of student (e.g., non-profit, governmental) to research and pro- pose solutions to diverse ecological problems. Students learn practical skills to apply ecological science to solving of diverse and interdisciplinary environ- mental problems, in intimate and participatory environ- ment. Students learn and are expected to produce high-quality academic work at professional level. Letter grading.

194. Evolution, Development, and Disease. (4) Lecture, three hours; discussion, one hour. Requisite: Life Sciences 7B. Recommended prerequisite: course 103, 110, 120, M157, C174, or 185. Exploration of development- al mechanisms underlying human disease design, including impacts of environment on these mechanisms. Exploration of what happens to animal form, including that of humans, when these develop- mental mechanisms are disrupted by environmental and genetic factors. Letter grading.

195. Evolutionary Medicine. (4) Lecture, two and one half hours; discussion, one hour. Requisite: Life Sciences 7B. Not open for credit to students with credit for course 120. Designed for departmental ma- jors specializing in environmental and population biology and medicine. Introduction to mechanisms and effects of evolution, with emphasis on natural se- lection, population genetics, speciation, evolutionary rates, and patterns of adaptation. Coverage of funda- mental principles of evolution, with special focus on human disease and human health. Letter grading.

196. Evolutionary Medicine: Clinical Perspective on Medical, Surgical, and Psychiatric Disorders. (4) Lecture, three hours; discussion, one hour. From breast cancer and heart failure to self-injury, obses- sive-compulsive and eating disorders, all com- temporary medical issues have evolutionary roots. Under- standing of application of evolutionary thought to issues faced by physicians, veterinarians, psycholo- gists, and other healthcare workers: awareness and understanding of evolutionary roots of these disorders provides future healthcare providers
with expanded perspective that enhances their practice and benefits their patients in whatever field they enter. Letter grading.

187. Variable Topics in Ecology and Evolutionary Biology. (1-4) Seminar, three hours. Prerequisites: Requisites: Life Sciences 1, 2, 3, 4, and 23L, or 7A, 7B, 7C, and 23L. Investigation, discussion, and study of current important issues involving substantial biological considerations in ecology and evolutionary biology. Consult Undergraduate Advising Office for current topics. May be repeated for credit. P/NP or letter grading.

188. Special Courses in Ecology and Evolutionary Biology. (1-12) Seminar, three hours. Departmentally sponsored temporary or long-term course. May be repeated for credit as directed by faculty. Letter grading.

188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Colloquium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SB. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Colloquium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to develop and complete USIE course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced corequisite: course 188SB. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE 88S course. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

188CH. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designated as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

190. Research Colloquium in Ecology and Evolutionary Biology. (1) Seminar, one hour. Designed to bring together students undertaking supervised tutorial research in seminar setting with one or more faculty members to discuss their own work or related work in discipline. Led by one supervising faculty member. P/NP grading.

191. Variable Topics Research Seminars: Ecology and Evolutionary Biology. (4) Seminar, three hours. Seminar on research methodology and evolution of biology. Consult Schedule of Classes for topics and instructors. If consent is approved in advance by Undergraduate Advising Office, undergraduate departmental majors may petition to use course to satisfy or partially satisfy elective requirement. May be repeated for credit with consent of instructor. P/NP or letter grading.

192A-192D. Undergraduate Assistant in Ecology and Evolutionary Biology. (2-4) Seminar, 12 hours (course 192A) and six hours (course 192B). Limited to juniors/seniors. Training and supervised practicum for advanced undergraduate students in assisting faculty with courses related to biology. Students assist in preparation of materials and development of innovative programs with guidance of faculty members in small course settings. Consult Undergraduate Advising Office for further information. May not be applied toward course requirements for departmental majors. May be repeated for credit. P/NP grading.

193. Journal Club Seminars: Ecology and Evolutionary Biology. (1) Seminar, two hours. Enforced corequisite: one course from 198A through 198D or 199. Designed to encourage participation and stimulate progress in specific research areas for undergraduate students who are part of departmental research group or independent students. Discussion of use of specific research methods and current literature in field or of research of faculty members or students. May be repeated for credit or letter grading.

194A. Research Group or Internship Seminars: Access to Research Careers. (2) Seminar, six hours. Designed for juniors/seniors in research traineeships or those who have strong interest in pursuing graduate study in molecular, biochemical, physiological, or biomedical fields. Weekly presentation and discussion of papers selected from current literature. No more than 4 units may be applied toward departmental majors. May be repeated for credit. Letter grading.

194B. Research Group or Internship Seminars: Ecology and Evolutionary Biology. (1) Seminar, two hours. Enforced corequisite: one course from 198A through 198D or 199. Designed to encourage participation and stimulate progress in specific research areas for undergraduate students who are part of departmental research group or independent students. Discussion of use of specific research methods and current literature in field or of research of faculty members or students. May be repeated for credit or letter grading.

195. Community or Corporate Engagement in Ecology and Evolutionary Biology. (4) Tutorial, 12 hours. Internship course for juniors/senior to be supervised by Center for Community Learning, fieldwork site, and faculty adviser. Consult Undergraduate Advising Office for more information. Students meet on regular basis with instructor and provide periodic reports of their experience. May not be applied toward requirements for departmental major. May be repeated twice for credit. Individual contract with supervising faculty member required. P/NP grading.

196. Research Apprenticeship in Ecology and Evolutionary Biology. (2 to 4) Tutorial, three hours per week. Limited to juniors/seniors. Entry-level research apprenticeship for upper-division students under guidance of faculty mentor. May be repeated for credit. Individual contract required. P/NP or letter grading.

198A-198D. Honors Research in Ecology and Evolutionary Biology. (4 each) Tutorial, 12 hours. Designed for juniors/seniors. Supervised individual research designed to broaden and deepen students’ knowledge of specific research areas. Honors content noted on transcript. Ecology and Evolutionary Biology Department faculty for at least two terms and for total of at least 8 units. Eight units may be applied toward departmental majors. Individual research projects (198A) and letter (198B) grading. Students may elect to enroll in additional research through courses 198C and 198D (letter grading). Report on projects must be presented to undergraduate adviser each term 198 course is taken.

199. Directed Research in Ecology and Evolutionary Biology. (2 to 4) Tutorial, six to 12 hours. Preparation: submission of written proposal outlining study or research to be undertaken; involve laboratory or field-related research, not literature surveys or library research. Proposal to be developed in consultation with instructor and submitted for approval to undergraduate adviser. Begins in that term. Limited to juniors/seniors. Supervised individual research under guidance of faculty mentor. At end of term culminating report describing progress of study research may be submitted. Student and instructor must be presented to undergraduate adviser. Only one 199 course may be applied toward departmental majors. May be repeated for credit. Individual contract required. Letter grading.

Graduate Courses

200A. Evolutionary Biology. (4) Formerly numbered M200A). Lecture, two hours; discussion, two hours. Current concepts and topics in evolutionary biology, including microevolution, speciation and species concepts, analytical biogeography, adaptive radiation, mass extinction, community evolution, molecular evolution, and development of evolutionary thought. S/U or letter grading.


200C. Advanced Animal Behavior. (4) Lecture, two hours; discussion, two hours. Survey of major topics in field of behavioral ecology. Topics include introduction to variety of research pursuits in field and questions and debates at leading edges of research. Advanced interdisciplinary projects span topics from mechanisms of behavior at molecular and cellular levels to consequences of behavior for Darwinian fitness and ecological and evolutionary processes. S/U or letter grading.

201. Introduction to R for Ecology and Evolutionary Biology. (1) Lecture, six hours; discussion, six hours. Designed for departmental PhD students. Offered as intensive two-day course at beginning of term. Introductory R language. Topics include working at command line, writing scripts and functions, flow control, graphics, and conducting basic simulations in discrete and continuous time. S/U grading.


203. Marine Botany and Physiology. (4) Lecture, two hours; discussion, one hour; laboratory, six hours; experimental project. Designed for graduate students. Structure, reproduction, life histories, and biology of marine algae, with emphasis on physiological ecology and biochemistry. Techniques in culture and physiological, ecological, and biochemical investigation of algae. Given off campus at marine science center. S/U or letter grading.

204. Advanced Biology of Algae. (4) Lecture, four hours; discussion, one hour. Consideration of current research in experimental and applied experimentation. Topics include disease resistance in algae, biotechnological manipulation of algae, and evolutionary theory. S/U or letter grading.

205. Marine Invertebrate Biology. (4) Lecture, four hours; laboratory, eight hours. Functional morphology, life histories, and systematics of marine invertebrates of all major and minor taxa; emphasis on living animal and its habitat. Given off campus at marine science center. S/U or letter grading.

206. Advanced Ichthyology. (4) Lecture, three hours; laboratory, three hours. Requisite: course 111 or 112. Advanced study of various aspects of fish biology. Theme varies from year to year. May be repeated for credit. S/U or letter grading.

208. Advanced Vertebrate Morphology. (4) Lecture, two hours; laboratory, eight hours. Requisite: course 110. Emphasis on functional approach to evolution of vertebrate locomotor, feeding, and circulatory systems. Laboratory includes comparative and experimental analyses of morphological adaptation. Independent project required. May be repeated once for credit. S/U or letter grading.

209. Behavior of Arthropods. (4) Lecture, three hours; discussion, one hour. Advanced study of topics in behavior of terrestrial arthropods, including communication, feeding, reproductive, and social behavior. Emphasis on both mechanistic and adaptive approaches toward understanding behavior. Independent project required. S/U or letter grading.
210. Advanced Ornithology. (4) Lecture; two hours, laboratory; two hours; fieldwork; two hours. Requisite: course 114A. Advanced study of topics in modern avian biology. Emphasis on experimental approaches to investigations of physiology (energetics, nutrition, osmoregulation), ecology (population and community organization), and behavior (foraging, breeding, sociability). S/U or letter grading.

217. Marine Biology. (4) Lecture, four hours; discussion, one hour. Designed for graduate students. Structure, diversity, and energetics of marine communities; behavior, population dynamics, and biogeography of component species; association with oceanic phenomena; and geology. Given off campus at marine science center. S/U or letter grading.


C219A. Mathematical and Computational Modeling in Ecology. (4) Lecture, three hours; discussion, one hour. Requisite: Life Sciences 30B or for continuing students 31A, 31B, 100, 122, Life Sciences 1 or 7B, Mathematics 3C. Introduction to modeling ecological systems, including formulation of mathematical models. Basic techniques of scientific programming; probability and stochastic modeling, and methods to relate models to data. Examples from ecology but techniques and principles are applicable throughout life and physical sciences. Concurrently scheduled with course C219A. S/U or letter grading.

C219B. Modeling in Ecological Research. (4) Lecture, two hours; discussion, two hours. Recommended requisite: course C219A. Advanced techniques in mathematical and computational modeling of ecological dynamics and other population dynamic problems. Independent research projects developed by students. Topics: stochastic modeling, chaotic models, fitting models to data, sensitivity analysis, presentation of model results, and other topics from current literature. Concurrently scheduled with course C219B. S/U or letter grading.

220. Conservation Science: Theory and Practice. (3) Lecture, three hours. Limited to graduate students. Conceptual foundations of conservation science and its applications to real-world conservation problems. Designed to help students intending to become conservation biologists and to want them to learn about conservation in a way that may make research immediately relevant, and those who intend to be conservation practitioners and want to understand the scientific and social dimensions of conservation. Six-week intensive course designed to train marine biologists in advanced techniques of cell and molecular biology. Independent project required. Given off campus at marine science center. S/U or letter grading.

M225. Global Health Measures for Biological Emergencies. (4) (Same as Epidemiology M226.) Lecture, four hours. Requisite: Epidemiology 200. Mitigation of bioterrorism falls outside traditional public health programs and public health graduate education. Because of seriousness of such threats, it is important that individuals trained in public health understand problems and responses. Letter grading.

C228. Earth Process and Evolutionary History. (6) (Same as Earth, Planetary, and Space Sciences CM228.) Lecture, four hours; laboratory, two hours. Requisite: Life Sciences 1 or 7B. Introduction to fundamental skills needed for manipulation, analysis, and visualization of large data sets. Basic programming and data analysis as well as working in shell, regular expressions, and related topics. Concurrently scheduled with course C177. Letter grading.


237. Communicating Science to Informal Audiences. (4) Lecture, three hours; discussion, one hour. Requisites: courses 158, 187. Science communication is a key skill for advancing scientific research and society. Students work collaboratively to communicate results of original research using formal (e.g., written paper and poster, multimedia presentation) and informal (e.g., video, brochure, digital art, etc.) forms of science communication. Students also create reflective communication piece (written, podcast, video) about what they learned through process and what they have learned that could be shared with broad audiences. Concurrently scheduled with course C179. Letter grading.

M238. Ocean Biogeochromic Dynamics and Climate. (4) (Same as Atmospheric and Oceanic Sciences M235.) Lecture, three hours, discussion, one hour. Designed for graduate students. Study of formation of matter offers insights into understanding the distribution and flux of carbon, oxygen, and nutrients in the ocean. Application of oceanic general circulation models enables prediction of future changes in the ocean. S/U or letter grading.

240. Physiology of Marine Animals. (4) Lecture, four hours; discussion, one hour. Designed for graduate students. Lecture and laboratory. Structure, tissue, organ, and animal physiology; regulatory biology; metabolic characteristics of cells, energy transduction. Given off campus at marine science center. S/U or letter grading.

C242. Behavioral Ecology. (4) Lecture, three hours; discussion, two hours. Requisites: course 100, Life Sciences 1 or 7B, Mathematics 3C or 32A or Life Sciences 30B. Recommended: course 129. Evolutionary perspective of behavioral ecology, with extended consideration of selfish DNA, conflict with genomes, natural selection and coevolution, kin selection and diversification, the role of sex, group living, and life history theory. S/U or letter grading.

243. Animal Communication. (4) Lecture, three hours; laboratory, two hours. Requisites: courses 100, 170, Life Sciences 7A, 7B, 7C, and one of Physics 1C and 4BL or 6C or 6CH, and one of Physiology 190A or 32A, and Physics 1C and 4BL or 6C or 6CH. Physical properties of animal signals and physiological mechanisms underlying their generation and reception. Lecture, discussions, laboratory, formal presentation. Students also present a short talk, write a term paper, and submit a project manuscript. Letter grading.

244. Advanced Insect Physiology. (4) Lecture, two hours; laboratory, five hours. Detailed discussion of current problems in insect physiology, with advanced laboratory. S/U or letter grading.

C246. Conservation Genetics. (4) Lecture, three hours; discussion, one hour. Requisites: course 150 or Life Sciences 170, Life Sciences 7A, 7B, 7C. Conservation genetics is interdisciplinary field that integrates genetic methods and concepts from population genetics, evolutionary biology, molecular ecology, and systematics to understand how to conserve and manage populations and species of natural organisms, and understand genetic processes underlying why some go extinct. Case studies of plants and animals. Linkage, population size, and inbreeding depression; landscape change and genetic connectivity of populations; climate change and local adaptation; management of wild and natural populations and species. Concurrently scheduled with course C146. S/U or letter grading.

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247. **Advanced Plant Biology.** (4) Lecture, three hours; discussion, two hours. Requisite: course 162 or Molecular, Cell, and Developmental Biology C141. Open to undergraduates with consent of instructor. Described to expose first-year graduate students to topics of current interest in plant biology. Subjects include plant genetics, growth and development, organelle structure, development and function, and plant-specific metabolic processes (photosynthesis, nitrogen fixation, metabolism of small molecules). S/U or letter grading.

250. **Professional Skills for Biological Research.** (2 to 3) Seminar, two hours. Preparation, writing, and submission of research proposals. Collection and maintenance of field and laboratory data, preparation of scientific presentations, review of literature, and publishing strategies. Optional field trip offered during some years for 1 extra unit. S/U or letter grading.

251. **Seminar: Systematics.** (2) Seminar, two to four hours. Current topics in systematic biology, including methods development and specific applications in study of phylogeny. Theme varies from year to year. May be repeated for credit. S/U or letter grading.

253. **Seminar: Plant Structure.** (2) Seminar, two hours. Requisite: course M200A. Interest in population genetics, such as kin selection, sociobiology, cultural evolution, conservation genetics, etc. S/U or letter grading.

255. **Seminar: Invertebrate Zoology.** (2) Seminar, two hours. S/U or letter grading.

256. **Molecular Ecology of Plant Populations.** (2) Seminar, two hours. Requisite: course M200A. Integration of ecological, population genetic, and evolutionary concepts to understand evolutionary ecology and conservation biology of plant populations in natural and disturbed settings, with application to both terrestrial and aquatic systems. Letter grading.

262. **Seminar: Population Genetics.** (2 or 4) Seminar, three to six hours. Seminar on topics of current interest in population genetics, such as kin selection, sociobiology, cultural evolution, conservation genetics, etc. S/U or letter grading.

264. **Seminar: Stomatal Function.** (4) Seminar, two hours; discussion, two hours. Open to undergraduates with consent of instructor. Structure and function of guard cells; gas exchange; environmental and hormonal regulation of stomatal response; transduction; stomatal adaptations. S/U or letter grading.

265. **Seminar: Biophysical Plant Ecology.** (2) Seminar, two hours. S/U or letter grading.

267. **Seminar: Current Topics in Evolutionary Ecology.** (2) Seminar, two hours. S/U or letter grading.

268. **Seminar: Population Biology.** (2) Seminar, two hours. S/U or letter grading.

269. **Seminar: Animal Ecology.** (2) Seminar, three hours. Advanced study of specific topics in animal ecology and related fields. S/U or letter grading.

270. **Seminar: Environmental Physiology.** (2) Seminar, two hours. S/U grading.


272. **Seminar: Marine Biology.** (2) Seminar, two hours. S/U or letter grading.

273. **Seminar: Entomology.** (2) Seminar, two hours. Discussion of specific topics in entomology and related fields varies from year to year, but usually emphasizes areas such as behavior, ecology, and evolution. S/U grading.

274. **Seminar: Behavioral Ecology.** (2) Seminar, two hours. Discussion of theoretical and empirical aspects of topics in behavioral ecology. S/U or letter grading.

279. **Seminar: Evolutionary Biology.** (2) Seminar, two hours. Requisite: course M231. Emphasis on particular issue in evolutionary biology, varying in topic whenever offered. Topics may include advances in phylogenetic methodology; relationship between development and evolution; biogeography, climate change, and faunal evolution; dispersal mechanisms and macroevolutionary patterns; adaptation and diversification; macroevolutionary patterns in fossil record. S/U or letter grading.

282. **Seminar: Ichthyology.** (2) Seminar, two hours. Requisite: course 111 or 112. Student presentations and discussion of specific topics in ichthyology. Theme varies from year to year. May be repeated for credit. S/U or letter grading.

M286. **Seminar: Statistical Problem Solving for Population Biology.** (2) (Same as Statistics M286.) Seminar, two hours. Nominal credit. Emphasis on statistical thinking and problem solving. Topics include data analysis, probability, and experimental design. S/U or letter grading.

291. **Seminar: Physiology and Biochemistry of Arthropods.** (2) Seminar, two hours. S/U or letter grading.

296. **Seminar: Ecology and Evolutionary Biology.** (1 to 4) Seminar, three hours. Advanced study and analysis of current topics in cellular, organismic, and population biology. Discussion of current research and literature in research specialty of faculty member teaching course. S/U or letter grading.

297. **Selected Topics in Evolutionary Ecology.** (1 to 4) Seminar, one to three hours. Advanced study and analysis of variable research topics in research issues in ecology and evolutionary biology. Consult Schedule of Classes for topics and instructors. May be repeated for credit with consent of instructor. S/U or letter grading.

299. **Seminar: Parasitology.** (2) Seminar, two hours. S/U or letter grading.

375. **Teaching Apprentice Practicum.** (1 to 4) Seminar, to be arranged. Preparation: apprentice per- sonnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U or letter grading.

495. **Preparation for Teaching Biology in Higher Education.** (2) Seminar, to be arranged. Designed for graduate students. Study of problems and methodologies in teaching biology, which includes workshops, seminars, apprentice teaching, and peer observation. S/U grading.

496. **Preparation for Teaching Biology in Higher Education.** (2) Lecture, two hours. Designed for graduate students. Strongly recommended as sequel to course 495 discussions on teaching, theory, and development of advanced skills. Study of methods and approaches to teaching of specific areas in biology, with emphasis on laboratory teaching, instructor/student interaction, and undergraduate motivation. S/U grading.

596. **Directed Individual (or Tutorial) Studies.** (2 to 12) Tutorial, to be arranged. Letter grading.

596F. **Directed Individual (or Tutorial) Studies.** (2 to 8) Tutorial, to be arranged. Given off campus at marine science center. S/U or letter grading.

598. **MA Thesis Research and Writing.** (2 to 12) Tutorial, to be arranged. S/U grading.
The undergraduate students are equally impressive. They are among the brightest students on campus and consistently go on to find success in the job market and in graduate school. Approximately 3,000 majors make the department the largest among major economics departments across the country, and one of the largest majors on campus. Students come from countries around the world, but the majority call California their home. Many are the first in their families to attend college, and the department is proud of them and their accomplishments.

An economics degree opens the door to a world of opportunities beyond UCLA. Department alumni play important roles in business, entertainment, and academia. Many maintain strong ties with UCLA and with the department. Undergraduate students go on to attend business school, law school, medical school, and graduate school in a variety of disciplines. Undergraduate Study

The Economics Department undergraduate program is designed for students who wish to gain a thorough understanding of both empirical and theoretical approaches to economics. Emphasis is on economic principles applied to resolving interpersonal conflicts of interest and coordinating productive activity in a world of scarce resources. Because students must gain a thorough theoretical and technical competence before extensive study of the applied specializations in the discipline, the analytic core of the major in Economics is closely structured. Some courses are appropriate for non-majors, but the curriculum is most suitable for students who wish to make the study of economics the primary focus in their undergraduate education.

The undergraduate major provides students with analytical training in reference to socio-economic phenomena and provides an excellent theoretical background for those pursuing graduate education in economics, law, management, public administration, journalism, social welfare, architecture and urban planning, and education.

Entry to the Major

Admission

Application for the Economics major should be submitted to the department undergraduate counseling office through the Message Center. To apply, students must have completed at least 72 quarter units (but no more than 135 quarter units), one 12-unit term in residence in regular session at UCLA, and all courses listed under preparation for the major. Grades for preparation for the major courses must be reflected on the Degree Audit Report (DAR) prior to submission.

Pre-major

While students are completing the lower-division preparation for the major courses, they may be classified as Economics pre-majors.

Transfer Students

Transfer applicants to the Economics major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one microeconomics course, one macroeconomics course, two calculus courses from the mathematics/physical sciences sequence, and one English critical reading and writing course. Transfer students must successfully complete all remaining pre-major re-
Preparation for the Major

**Required:** Economics 1, 2, 11, 41; one Writing II course or English Composition 129B; Mathematics 31A, and 31B or 31E.

**The Major**

**Required:** Twelve upper-division economics courses as follows: Economics 101, 102, 103, 103L, 104, 104L, and six Economics Department upper-division elective courses. No more than two of the elective courses may also be selected from Management 120A, 120B, 122, 127A, 130A, 180 (real estate finance only).

**Honors Program**

Students must complete Economics 198A and 198B in which a thesis is written.

**Business Economics BA**

The Business Economics BA program offers a major for students seeking a business orientation in their study of economics. It does not replicate the traditional undergraduate business school curriculum. Instead, it offers a more tightly focused curriculum that is guided by the rigorous logic and integrative perspective of economics. It is designed to prepare students for graduate education in business, economics, and law. The program requires students to include specific courses offered by the department and the John E. Anderson Graduate School of Management (see the major).

**Learning Outcomes**

The Business Economics major has the following learning outcomes:

- Understanding, through application of microeconomics, of the interaction of individuals and organizations in markets; and of the role of public policy in shaping those interactions
- Understanding, through application of macroeconomics, of the functioning of market economies at regional, national, and global levels; and of the role of public policy in shaping those interactions
- Understanding and application of accounting principles to analysis of business problems
- Acquisition and use of data to evaluate hypotheses with tables, charts, and statistical analyses
- Use of appropriate analytical perspectives and approaches to frame problems involving the interaction of people, organizations, markets, and society; identify effective strategic approaches to problem solving; and gather and organize key information to facilitate problem solving

**Preparation for the Major**

Transfer credit for any of the above is subject to department approval; consult with an undergraduate counselor before enrolling in any courses for the major.

**Transfer Students**

Transfer applicants to the Business Economics major must complete the following introductory courses prior to admission to UCLA: one microeconomics course, one macroeconomics course, two calculus courses from the mathematics/physical sciences sequence, one English composition/critical thinking course. Transfer students who wish to enter UCLA as Business Economics pre-majors must meet the admission screening requirements. For information, contact Undergraduate Admission.

Transfer credit for any of the above is subject to department approval; consult with an undergraduate counselor before enrolling in any courses for the major.

**Entry to the Major**

**Admission**

Applications for admission by current UCLA students are handled exclusively by the Department of Economics. To apply, students must have completed at least 72 quarter units (but no more than 135 quarter units), one 12-unit fall, winter, or spring term in residence at UCLA, and all courses listed under preparation for the major. Applications are available on the undergraduate economics Bruin Learn website and are accepted online during the first three weeks of each quarter as well as summer session A. In addition, they must (1) have a 2.0 (C) minimum grade in each preparation course, (2) have a minimum 3.0 (B) overall average in all preparation courses excluding the Writing II course, and (3) have a minimum 2.0 (C) grade-point average in their upper-division courses taken for the major before applying (Economics 101 applies on the major preparation grade-point average).

The requisite grade-point averages plus completion of the preparation for the major courses do not guarantee admission to the program.

**Capstone Learning Outcomes**

- Demonstrate competence in economics, of the interaction of individuals and organizations in markets; and of the role of public policy in shaping those interactions
- Demonstrate understanding of microeconomics, of the functioning of market economies at regional, national, and global levels; and of the role of public policy in shaping those interactions
- Demonstrate understanding and application of accounting principles to analysis of business problems
- Demonstrate ability to use of data to evaluate hypotheses with tables, charts, and statistical analyses
- Demonstrate ability to use of appropriate analytical perspectives and approaches to frame problems involving the interaction of people, organizations, markets, and society; identify effective strategic approaches to problem solving; and gather and organize key information to facilitate problem solving

**Requirements**

**Preparation for the Major**

**Required:** Economics 102, 103, 103L, 104, 104L, and six Economics Department upper-division elective courses. No more than two of the elective courses may also be selected from Management 120A, 120B, 122, 127A, 130A, 140 (real estate finance only).
and may be selected from either the Economics 106 series or an economics elective.

Honors Program

Students must complete Economics 198A and 198B in which a thesis is written.

Policies

Preparation for the Major

Each course must be taken for a letter grade. For students admitted to UCLA in fall 2023 and later, repetition of more than two pre-major economics courses or of any preparation course more than once, including equivalent courses taken elsewhere, results in automatic denial of admission to the major.

For students admitted to UCLA prior to fall 2023, repetition of more than one preparation course or of any preparation course more than once, including equivalent courses taken elsewhere, results in automatic denial of admission to the major.

The Major

Each upper-division major course must be taken for a letter grade. Transfer credit for any of the major courses is subject to department approval; consult with an undergraduate counselor before enrolling in any courses for the major. Laboratory courses are required for all upper-division economics courses when they are offered and listed as mandatory co-requisite.

To graduate, students must have a minimum 2.0 grade-point average in their upper-division major courses, with at least a C– in each course. (Economics 101 applies on the preparation for the major, therefore requiring a minimum grade of C.)

Honors Program

The departmental honors program is open to majors who have a cumulative grade-point average of at least 3.5 in the major and in all courses taken at UCLA prior to application. To qualify for departmental honors at graduation, students must (1) select at least seven of the required upper-division economics courses from the approved list designated for departmental honors, (2) complete a two-term senior thesis acceptable to the departmental honors committee in Economics 198A and 198B, and (3) complete the major requirements with at least a 3.5 grade-point average in the economics courses. Highest honors are awarded at the discretion of the departmental honors committee based on grade-point average and quality of the senior thesis.

Economics 198A and 198B, the courses required for thesis preparation, may be counted as upper-division courses toward the field in which the thesis is written (for purposes of satisfying the requirements for the major). More information and application forms are available from an undergraduate counselor in 2263 Bunche Hall.

Mathematics/Economics BS

See the Mathematics/Economics interdepartmental program section for a description of the major.

Graduate Majors

Economics MA, CPhil, PhD

Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Master of Quantitative Economics

Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Economics

Lower-Division Courses

1. Principles of Economics. (4) Lecture, three hours; discussion, one hour. Not open to students with credit for former course 100. Introduction to principles of economic analysis, economic institutions, and issues of economic policy. Emphasis on application of resources and distribution of income through price system. P/NP or letter grading.

2. Principles of Economics. (4) Lecture, three hours; discussion, one hour. Enforced requisite: course 1. Not open to students with credit for former course 100. Introduction to principles of economic analysis, economic institutions, and issues of economic policy. Emphasis on aggregate economic, including national income, monetary and fiscal policy, and international trade. P/NP or letter grading.

3A. Introduction to Investments. (2) Lecture, two hours. Introduction to investments. No previous financial, economic, or mathematics background required. Enforced prerequisites: courses 1, 2, Mathematics 31A, 31B, with grades of C or better. Laws of demand, supply, returns, and costs; price and output determination in different market situations. P/NP or letter grading.

3B. Introduction to Investments. (2) Lecture, two hours. Enforced requisite: course 3A. Broad introduction to investments. No previous financial, economic, or mathematics background required. Students learn organizing framework with which to understand investing landscape with highlight on key concepts and functionality related to business and personal investments. Topics include why financial markets exist and how they work, efficient market hypothesis, risk versus reward, investment styles, valuation techniques, simple quantitative analysis, power of compound interest and understanding capital asset pricing model, Sharpe ratio, and understanding asset’s beta, hedge funds. Serves as excellent introduction to career paths in finance and for those who want to increase their financial literacy. P/NP grading.

4. Introduction to Investments. (4) Lecture, two hours. Broader introduction to investments. No previous financial, economic, or mathematics background required. Enforced prerequisites: courses 1, 2, Economics 198A and 198B, the courses required for thesis preparation, may be counted as upper-division courses toward the field in which the thesis is written (for purposes of satisfying the requirements for the major). More information and application forms are available from an undergraduate counselor in 2263 Bunche Hall.

4C. Probability and Statistics for Economists. (4) Lecture, three hours; discussion, one hour. Enforced requisites: courses 1, 2, Mathematics 31A, 31B, with grades of C or better. Laws of demand, supply, returns, and costs; price and output determination in different market situations. P/NP or letter grading.

5. Economics for everyone. (5) Lecture, three hours; discussion, one hour. Introduction to models and tools used by economists in practical real-world context. Study of important topical issues such as health care and environmental policies. Students learn about available economic data sources and become better equipped to understand current events. May not be used to fulfill entrance requirements for any Economics Department major. P/NP or letter grading.

10P. Economics Toolkit: Introduction to Python for Economists. (4) Lecture, three hours. Python is commonly used programming language for data science. It is powerful and easy to learn tool that can be applied to make simple histograms or fit complicated machine learning models. Introduction to using Python for basic data exploration, analysis, and visualization. Emphasis on applications with economic data and econometric analysis. P/NP grading.


11. Microeconomic Theory. (4) Lecture, three hours; discussion, one hour. Enforced requisites: courses 1, 2, Mathematics 31A, 31B, with grades of C or better. Laws of demand, supply, returns, and costs; price and output determination in different market situations. P/NP or letter grading.

12. Introduction to Personal Finance. (4) Lecture, three hours; discussion, one hour. Introduction to personal finance. No previous financial, economic, or mathematics background required. Open to nonmajors. Covers wide array of topics with introductory level that are of interest to students on practical level and more broadly for students seeking to deepen their understanding of key features of financial system, financial institutions, and various aspects of personal finance encountered by typical household over their life cycle. Topics covered include: time value of money, types of loans most relevant to typical household, credit and debit cards, savings and investment, stocks and bonds, risk and diversification, personal income tax, social security, retirement, and savings plans, macroeconomic concepts, social security, Medicare, and aspects of behavioral economics. Letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

41. Probability and Statistics for Economists. (4) Lecture, three hours; discussion, one hour. Enforced requisites: courses 1, 2, Mathematics 31A, 31B, with grades of C or better. Not open to students with credit for former Statistics 11. Introduction to theory and practice of math-
ematical statistics with emphasis on its use in econometrics. Introduction of basic statistical concepts such as random variables, probability distributions, estimation, confidence intervals, and hypothesis testing. Letter grading.

98. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, presentations, other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors credit noted on transcript. P/NP or letter grading.

89H. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors credit noted on transcript. Letter grading.


99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses


103. Introduction to Econometrics. (4) Lecture, three hours; discussion, one hour. Enforced requisites: courses 11 and 41 or Mathematics 170A and 170B or 170E and 170F or 170E and 170F. Enforced corequisite: 103L. Introduction to theory and practice of univariate regression analysis with emphasis on its use in economics. Introduction to method of least squares, Gauss-Markov theorem, confidence intervals and hypothesis tests in univariate regression context, and standard errors in case of heteroscedasticity and serial correlation. Emphasis on applications with real data and computer software (R programming language) to implement discussed methods. P/NP or letter grading.

103L. Econometrics Laboratory. (1) Lecture, one hour; laboratory, one hour. Enforced requisites: courses 11, and 41 or Mathematics 170A and 170B or 170E and 170F or 170E and 170F and 170S or Statistics 100A and 100B. Enforced corequisite: 103T. Econometric analysis of case-based studies. Hands-on data collection and problem solving. Use of econometric software. P/NP or letter grading.

104. Data Science for Economists. (4) Lecture, three hours; laboratory, one hour. Enforced requisites: courses 11, 103. Enforced corequisite: course 104L. In-depth discussion of univariate regression. Introduction to estimation of multivariate regression, and confidence intervals and hypothesis tests in context of multivariate regression. Discussion of instrumental variables and two-stage models. Emphasis on hands-on experience on data analytics and real data applications. P/NP or letter grading.


106A. Economics in Practice. (4) Seminar, three hours. Enforced requisites: courses 11, 101, 102. Enforced corequisite: course 106EL. Lecture and discussion address three small problems and one large and more complex problem. Discussion of student-proposed solutions to problems in their groups, with small-group discussions of student presentations of results to class. Detailed coaching and feedback by MBA students on student analysis and presentations. Final written and oral presentations required. P/NP or letter grading.

106AL. Economics in Practice Laboratory. (1) Lecture, one hour; laboratory, one hour. Enforced corequisite: course 106A. Case-based analysis requiring students to apply material from course 106A to real-world problems regarding issues such as economic theory and empirical methods. Hands-on data collection and problem solving and presentation of student analyses both orally and in writing. P/NP or letter grading.

106D. Designed Markets. (4) Lecture, three hours; discussion, one hour. Requisites: courses 11, 101. Enforced corequisite: course 106DL. Discussion of market designs, including theoretically designed, mostly by economists. Choices designers face when designing such markets. Markets and their context and corresponding economic models. Topics include matching between medical residents and hospitals, matching between high school students and New York and Boston high schools, kidney transplants, course allocation in business schools, eBay auctions, and prediction markets. Examination of how to optimize one’s actions out of outcomes in such markets. P/NP or letter grading.

106DL. Designed Markets Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisites: courses 11, 101, 106D. Enforced corequisite: course 106D. Case-based analysis requiring students to apply material from course 106D to real-world problems regarding topics such as matching between medical residents and hospitals, matching between high school students and New York and Boston high schools, kidney transplants, course allocation in business schools, eBay auctions, and prediction markets. Hands-on data collection and problem solving and presentation of student analyses both orally and in writing. P/NP or letter grading.

106E. Economics of Entrepreneurship. (4) Lecture, three hours. Requisite: course 101. Enforced corequisite: course 106EL. Case-based analysis requiring students to apply material from course 106E to real-world problems regarding issues such as combining elements of strategy, market, and entrepreneurial finance courses. Examination of both strategic decisions of entrepreneurs (pricing, advertising, deterring entry) and more practical issues (funding, business plans, patents). Letter grading.

106EL. Economics of Entrepreneurship Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisite: course 106E. Enforced corequisite: course 106EL. Case-based analysis requiring students to apply material from course 106EL to real-world problems regarding business plans, patents, property rights and asset ownership, boundaries of firms, employment versus independent contracting, internal organization of firms, role and levels of firm hierarchy. P/NP or letter grading.

106L. Organization of Firms Laboratory. (1) Lecture, one hour; laboratory, one hour. Enforced requisites: courses 11, 101, 106L. Enforced corequisite: course 106L. Case-based analysis requiring students to apply material from course 106L to real-world problems regarding issues such as combining elements of strategy, market, and entrepreneurial finance courses. Examination of both strategic decisions of entrepreneurs (pricing, advertising, deterring entry) and more practical issues (funding, business plans, patents). Hands-on data collection and problem solving and presentation of student analyses in writing with oral presentations. P/NP or letter grading.

106M. Financial Markets and Financial Institutions. (4) Lecture, three hours; discussion, one hour. Requisites: courses 11, 101, 106M. Enforced corequisite: course 106MML. Application of analytical tools of economics and finance to real-world problems in financial markets to link models students have learned in prior courses to patterns observed in financial markets and to understand when it is that further theoretical refinements are required to better account for certain observed patterns. Development of understanding of potential effects of monetary and regulatory policies on financial markets. Topics include bond market, stock market, foreign exchange market, financial crises, and financial regulation. Analysis and discussion of lessons of subprime crisis and European sovereign debt crisis. P/NP or letter grading.

106ML. Financial Markets and Financial Institutions Laboratory. (1) Lecture, one hour; laboratory, one hour. Enforced requisites: courses 11, 101, 102, 106ML. Enforced corequisite: course 106ML. Case-based analysis requiring students to apply material from course 106ML to real-world problems involving financial markets and financial institutions. Issues include potential effects of monetary and regulatory policies on financial markets. Topics include bond market, stock market, foreign exchange market, financial crises, and financial regulation. Hands-on data collection and problem solving and presentation of student analyses both orally and in writing. P/NP or letter grading.

106SL. Economics of Technology and E-Commerce. (4) Lecture, three hours. Requisites: courses 11, 101. Enforced corequisite: course 106T. Examination of competitive strategy and competitive advantage using game theoretic models and case studies. Topics include economic tools to analyze world of technology and e-commerce. Examination of economic theory, empirical analysis, and case studies to study variety of new markets. Includes analysis of competition in two-sided markets, matching markets, and reputation mechanisms. Written case on one particular firm and presentation required. P/NP or letter grading.

106T. Economics of Technology and E-Commerce Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisites: courses 11, 101. Enforced corequisite: course 106T. Use of rigorous economic tools to analyze world of technology and e-commerce. Examination of economic theory, empirical analysis, and case studies to study variety of new markets. Includes analysis of competition in two-sided markets, matching markets, and reputation mechanisms. Written case on one particular firm and presentation required. P/NP or letter grading.

106VL. Investments Laboratory. (1) Lecture, one hour. Requisite: course 106VL. Corequisite: course 106T. Use of rigorous economic tools to analyze world of technology and e-commerce. Examination of economic theory, empirical analysis, and case studies to study variety of new markets. Includes analysis of competition in two-sided markets, matching markets, and reputation mechanisms. Written case on one particular firm and presentation required. P/NP or letter grading.

107. History of Economic Theory. (4) Lecture, three hours. Enforced corequisite: course 107. Economic history from early 20th century, concentrating on 18th and 19th centuries; special attention to selected writers, including Aristotle, mercantilists, Physiocrats, Hume, Smith, Malthus, Ricardo, Marx, and Keynes. Not open to students with credit for former course 123. P/NP or letter grading.

111L. Theories of Development. (4) Lecture, three hours. Requisites: courses 11, 101, 103. Corequisite: course 111L. Application of theoretical and empirical tools from microeconomics to provide insights into problems confronting low-income countries today and to evaluate policies that are likely to be effective in improving well-being of poorest on globe. P/NP or letter grading.

111L. Theories of Development Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisites: courses 11, 101, 103. Corequisite: course 111L. Case-based analysis requiring students to apply material from course 111L to real-world problems involving development, demand for healthcare, demand for insurance, pensions, labor, and capital, exchange rates and gains of trade. Effects of tariffs, quantitative restrictions, and international integration; effects of free and restricted trade on economic welfare and political stability. P/NP or letter grading.

121L. International Trade Theory Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisites: courses 11, 101, 103. Corequisite: course 121L. Case-based analysis requiring students to apply material from course 121L to real-world problems involving international trade. Topics and analysis include theory of international trade: bases, direction, terms, volume, and gains of trade; effects of tariffs, quantitative restrictions, and international integration; effects of free and restricted trade on economic welfare and political stability. P/NP or letter grading.

122L. International Finance Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisite: course 102. Corequisite: course 122L. Not open to students with credit for former course 122L. Enforced corequisite: course 122L. Not open to students with credit for former course 122L. P/NP or letter grading.

123L. Forecasting Exchange Rates and Constructing Currency Portfolios Laboratory. (1) Lecture, one hour. Requisite: course 102. Corequisite: courses 11, 102, 103, 103L, or consent of instructor. Corequisite: course 123L. Construction of portfolio of currency assets in order to design computer codes to make real-time exchange rate forecasts by applying such models to real-world data. Different statistical tests to evaluate accuracy of forecasts and to assess risk-reward trade-offs of currency portfolios. P/NP or letter grading.


130L. Public Economics Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisites: courses 11, 101, 103. Enforced corequisite: course 130. Case-based analysis requiring students to apply material from course 130 to real-world problems involving government spending programs, taxation, deficit financing, and federal credit programs. Hands-on data collection and problem solving and presentation of student analyses both orally and in writing. P/NP or letter grading.

131L. Economics of Health and Healthcare Labora-
tory, (1) Lecture, one hour; laboratory, one hour. En-
forced corequisites: courses 11, 101, 103. Enforced core-
quisite: course 140L. Case-based analysis re-
quiring students to apply theory from course 131 to
real-world problems regarding economics of health
and healthcare. Hands-on data collection and
problem solving and presentation of student analyses
both orally and in writing. P/NP or letter grading.

132. Topics in Taxation and Social Insurance. (4)
Lecture, three hours; discussion, one hour. Requisites:
courses 11, 101. In-depth examination of selected topics
related to current policy debates. Topics vary from
to year to year but typically emphasize tax policy or
social insurance. Topics may include optimal taxation;
tax inefficiencies and their implications for labor
supply; capital-labor substitution; income redistribution
and personal income tax; corporate taxation and im-
plications for firms’ investment and financing deci-
sions; Social Security and SSDI reform; and welfare
programs. P/NP or letter grading.

133. Intergenerational Poverty in America. (4)
Lecture, three hours; discussion, one hour. Requisites:
courses 11, 101, 103. Enforced corequisite: course
133L. Examination of how poverty influences child
development and aging and its effects on intergenera-
tional mobility in America, looking at historical trends
and placing U.S. in international context. To under-
stand this, we cover regression analysis and theories
in U.S., study of economic model of skill formation in
childhood. Consideration of existing research ex-
ploring how number of factors explain intergenera-
tional persistence of poverty, including parental time
pollution, infant and child health, justice system,
neighborhoods, stress, and preschool/education sys-
tems. Discussion of evidence on whether various public
policies can improve mobility. P/NP or letter grading.

133L. Intergenerational Poverty in America Labora-
tory, (1) Lecture, one hour; laboratory, one hour. En-
forced corequisites: courses 11, 101, 103. Enforced core-
quisite: course 133. Case-based analysis re-
quiring students to apply theory and analysis from
course 133 to real-world problems regarding intergen-
erational poverty in America. Hands-on data collection
and problem solving and presentation of student anal-
yses both orally and in writing. P/NP or letter grading.

134. Environmental Economics. (4)
Lecture, three hours. Requisites: course 41 or Statistics
12 or 13, and courses 10 or 11, 102, 103. Enforced core-
quisite: course 133. Case-based analysis re-
quiring students to apply theory and analysis from
course 133 to real-world problems regarding intergen-
erational poverty in America. Hands-on data collection
and problem solving and presentation of student anal-
yses both orally and in writing. P/NP or letter grading.

M135. Economic Models of Public Choice. (4)
(Same as Political Science M105.) Lecture, three or
four hours; discussion, one hour (when scheduled).
Preparation: any lower-division political science
course. Enforced requisite: course 11. Designed for ju-
niors/seniors. Analysis of methods and consequences
of arriving at collective decisions through political
mechanisms. Topics include free-rider problem, voting
and majority choice, decision, revelation, and political
bargaining. P/NP or letter grading.

137. Introduction to Urban and Regional Econom-
ic Analysis. (4)
Lecture, three hours; discussion, one hour. Requisites:
courses 10, 11, 101, 102. Enforced corequisite: course
140L. Intro-
duction to variety of computational methods used in
economics. Use of Python and numerical techniques
to solve models in macroeconomics and finance, mi-
croeconomics, and econometrics. Students should be
familiar with scientific programming language such as
R or MATLAB but are not required to know Python.
P/NP or letter grading.

140L. Computational Methods for Economists Lab-
oratory, (1) Lecture, one hour; laboratory, one hour.
Requisites: courses 101, 102, 103, Mathematics 31A, 31B,
32A, 32B, 33A, 33B. Enforced corequisite: course 140L.
Problem-solving and project-based laboratory re-
quiring students to apply computational methods from
course 140 to solve models in macroeconomics and
finance, microeconomics, and econometrics. Stu-
dents learn to implement some of the tools and tech-
niques in language such as R or MATLAB but are not required
to know Python. P/NP or letter grading.

141. Topics in Microeconomics: Mathematical Fi-
nance. (4)
Lecture, three hours; computer laboratory, one hour. Requisites:
courses 11, Mathematics 32A, ei-
ther Statistics 100A or Mathematics 170A. Economics
of financial markets, competitive equilibrium with time
and uncertainty, income risk and consumption, and
market completeness. P/NP or letter grading.

142. Topics in Microeconomics: Probabilistic Micro-
economics. (4)
Lecture, three hours. Requisite: course 101. Combination of basic probability intro-
duced in Statistics 11 with microeconomic models
presented in courses 11 and 101 in order to explain
phenomena such as insurance, job search, and stock
market behavior. Optimal production and consump-
tion under uncertainty, the capital asset pricing model
and introduction to alternative measures of risk and risk aver-
sion. P/NP or letter grading.

143. Advanced Econometrics. (4)
Lecture, three hours; discussion, one hour; laboratory, one hour. Requisite:
course 103. Not open to students with credit for former course 147A or 147B. Heteroskedasticity, limited dependent variable, panel data, time-series.
P/NP or letter grading.

144. Economic Forecasting. (4)
Lecture, three hours. Preparation: familiarity with data analysis software
(e.g., R, Excel, MATLAB, Stata) and/or programming experience. Enforced requisites: courses 101, 103,
106. Study and application of time-series methods to forecasting in economics, business,
and government. Topics include modeling and forecasting trend, seasonality, and cycles. Discussion of clas-
sic problems, volatility model, and evaluation of forecasting techniques. Hands-on approach to real-
world data analysis methods widely used by econo-
mists and other professionals. P/NP or letter grading.

145. Topics in Microeconomics: Mathematical Eco-
nomics. (4)
Lecture, three hours. Requisite: course 101. Possible topics include game theory; competitive equilibrium analysis; examination of market failure and role for market intervention. P/NP or letter grading.

C146A-C146B-C146C. Seminars: Asset Pricing. (4-
4-4) Seminar, three hours; discussion, two hours.
Enforced requisite: courses 11, 101. Overview of time-series
models by incorporating realistic features such as
heteroskedasticity and autocorrelation consistent
(HAC) estimation, unit root theory, estimation
and inference of voluntary models. Provides useful preparation to students who plan to take empirically oriented macroeconomics and fi-
cance courses, and solid understanding of tools required to analyze and interpret time-series
data and financial asset prices/returns. Emphasis throughout on link be-
tween statistical models and im-
plementation. P/NP or letter grading.

146L. Time-Series Econometrics Laboratory. (1)
Lecture, one hour; laboratory, one hour. Requisites:
courses 41, 103, Mathematics 31A, 31B. Enforced core-
quisite: course 140. Problem-solving and project-
based analysis requiring students to apply time-series analysis from course 146 to analyze time-series
data. Applications involve weak dependence, autore-
gressive-moving-average (ARMA) processes, linear processes, economic forecasting, long-
run variance and heteroskedasticity and autocorrela-
tion consistent (HAC) estimation, unit root theory, esti-
mation and inference of volatile models. Provides useful preparation to students who plan to take empirically oriented macroeconomics and fi-
cance courses, and solid understanding of tools required to analyze and interpret time-series
data and financial asset prices/returns. Emphasis throughout on link be-
tween statistical models and im-
plementation. P/NP or letter grading.

150. Labor Economics. (4)
Lecture, three hours. Requ-
isites: courses 11, 101, 103. Enforced corequisite:
course 140. Supply and demand. Analysis of
processes, economic forecasting, long-run variance
and heteroskedasticity and autocorrelation consistent
(HAC) estimation, unit root theory, estimation
and inference of time-varying volatility models. Provides useful preparation to students who plan to take empirically oriented macroeconomics and finance courses, and solid understanding of tools required to analyze and model economic time series data and financial asset prices/returns. Emphasis throughout on link be-
tween statistical models and im-
plementation. P/NP or letter grading.

150L. Labor Economics Laboratory. (1)
Lecture, one hour; laboratory, one hour. Requisites:
courses 11, 101, 103. Enforced corequisite: course
150. Case-based analysis requiring students to apply theoretical
tools courses 150 to 152 involving labor economics. Topics include labor supply deci-
sions, household production decisions, life-cycle as-
spects of labor supply, short-run and long-run labor de-
mand, monopsony in labor, national labor market costs and labor demand, human capital, and other ex-
tended topics. Hands-on data collection and problem
solving and presentation of student analyses both oral-
ly and in writing. P/NP or letter grading.

151. Topics in Labor Economics. (4)
Lecture, three hours. Requisites: courses 101, 150. Selected topics in labor theory; income distribution; business cycles and unemployment; investments in human capital and life cycles; migration; human fertility; marriage and di-
vorce, etc. P/NP or letter grading.

152. Women, Men, and Economy. (4)
Lecture, three hours; discussion, one hour. Requisites:
courses 11, 101, 103. Corequisite: course 152L. Introduction to using tools of economics to understand gender-
and persistence of institutions and organizations, World Wars, and development of Europe during 1950s and 1960s. P/NP or letter grading.

181L. Development of Economic Institutions in Western Europe in 1900s. (4) Lecture, three hours; laboratory, one hour. Requisites: courses 11, 103. Corequisite: course 181. Empirical analysis requiring application of material from corresponding lecture course to selected historical issues, such as Malthusian theory, Industrial Revolution, demographic transition, formation and persistence of institutions and organizations, World Wars, and development of Europe during 1950s and 1960s. P/NP or letter grading. Problem solving and presentation of student analyses in writing. P/NP or letter grading.

182A. U.S. Economics History: From Colonial Times to the Civil War. (4) Lecture, three hours; discussion, one hour. Requisites: courses 11, 41 (or equivalent). Enforced corequisite: course 182AL. Examination of the development of the U.S. economy up to and including the Civil War. Focus on using economic models and empirical analysis to understand what drove the evolution of the economy, why structural changes occurred, and why there was persistence. While the past persists for a long time in the form of people and institutions, there are periods of dramatic change brought on by technological change and by war. Study of the past, with its very different institutions, to inform the present. For example, there was no U.S. currency until the Civil War, and there was a limited number of banks in each state had different banking regulations. Investigation of how the system worked, whether it was effective in allocating capital, and how stability depended on banking regulations. P/NP or letter grading.

182AL. U.S. Economics History: From Colonial Times to the Civil War Laboratory. (1) Lecture, one hour; laboratory, one hour. Enforced corequisite: course 11, 41 (or equivalent). Enforced corequisite: course 182AL. Empirical analysis requiring application of material from course 182A to the development of the U.S. Economy from Colonial Times to World War I. Focus on using economic models and empirical analysis to understand what drove the evolution of the economy, why structural changes occurred, and why there was persistence. While the past persists for a long time in the form of people and institutions, there are periods of dramatic change brought on by technological change and by war. Study of the past, with its very different institutions, to inform the present. For example, there was no U.S. currency until the Civil War, and there was a limited number of banks in each state had different banking regulations. Investigation of how the system worked, whether it was effective in allocating capital, and how stability depended on banking regulations. P/NP or letter grading.

182B. U.S. Economics History: From the Civil War to World War I. (4) Lecture, three hours; discussion, one hour. Requisites: courses 11, 41 (or equivalent). Enforced corequisite: course 182BL. Examination of the development of the U.S. Economy from the Civil War to World War I. Focus on using economic models and numbers to understand what drove the evolution of the economy, why structural changes occurred, and why there was persistence. While the past persists for a long time in the form of people and institutions, there are periods of dramatic change brought on by technological change and by war. Study of the past, with its very different institutions, to inform the present. For example, the time period from the Civil War to World War I witnessed the rise of large corporations and complaints of monopoly power. There was anti-trust law. Investigation of degree to which collusion and monopoly was a problem, and whether anti-trust law solved the problem or if the regulators were captured. Consider also that there was no Federal Reserve until 1913, and examination of the problems created by not having a Federal Reserve. P/NP or letter grading.

182BL. U.S. Economics History: From the Civil War to World War I Laboratory. (1) Lecture, one hour; laboratory, one hour. Enforced corequisite: course 182BL. Empirical analysis requiring application of material from course 182A to the development of the U.S. Economy from the Civil War to World War I. Focus on using economic models and empirical analysis to understand what drove the evolution of the economy, why structural changes occurred, and why there was persistence. While the past persists for a long time in the form of people and institutions, there are periods of dramatic change brought on by technological change and by war. Study of the past, with its very different institutions, to inform the present. For example, the time period from the Civil War to World War I witnessed the rise of large corporations and complaints of monopoly power. There was anti-trust law. Investigation of degree to which collusion and monopoly was a problem, and whether anti-trust law solved the problem or if the regulators were captured. Consider also that there was no Federal Reserve until 1913, and examination of the problems created by not having a Federal Reserve. P/NP or letter grading.

182C. U.S. Economics History: From World War I to 1980s. (4) Lecture, three hours; discussion, one hour. Requisites: courses 11, 41 (or equivalent). Enforced corequisite: course 182CL. Examination of the development of the U.S. economy from the World War I to 1980s. Focus on using economic models and numbers to understand what drove the evolution of the economy, why structural changes occurred, and why there was persistence. While the past persists for a long time in the form of people and institutions, there are periods of dramatic change brought on by technological change and by war. Study of the past, with its very different institutions, to inform the present. For example, the time period from the Civil War to World War I witnessed the rise of large corporations and complaints of monopoly power. There was anti-trust law. Investigation of degree to which collusion and monopoly was a problem, and whether anti-trust law solved the problem or if the regulators were captured. Consider also that there was no Federal Reserve until 1913, and examination of the problems created by not having a Federal Reserve. P/NP or letter grading.

182CL. U.S. Economics History: World War I to 1980s Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisites: course 11, 41 (or equivalent). Enforced corequisite: course 182CL. Empirical analysis requiring application of material from course 182C to the development of the U.S. Economy from World War I to 1980s. Focus on application of economic models and empirical analysis to understand what drove the evolution of the economy, why structural changes occurred, and why there was persistence. P/NP or letter grading.


183L. Development of Economic Institutions in U.S. Laboratory. (4) Lecture, one hour; laboratory, one hour. Requisite: course 11. Enforced corequisite: course 183L. Exploration of problems created by not having a Federal Reserve. P/NP or letter grading.

185. Career Development. (1) Lecture, one hour. Enrollments to departmental majors. Designed to provide Business Economics majors with key knowledge and practical skills used in real world that complement traditional academics to maximize interview, communication, and presentation skills and strengthen résumé building. Coverage of career paths in business profession in various aspects to broaden students' perspective on future opportunities. Review of current business environment, financial markets, economy, unemployment, banking crises, market updates, and all related business topics. P/NP grading.

C186A-C186B-C186C. Seminars: Economic History for Advanced Undergraduate and Graduate Students. (2–4) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be repeated for credit with topic change. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Requisite: courses 101, 102, 103. Research seminars on selected topics in economics. Reading, discussion, and development of culminating project. Consult Schedule of Classes for meeting times. May not be applied toward credit with topic change. P/NP or letter grading.

190. Variable Topics Research Seminars: Econom- ics. (4) Seminar, three hours. Enforced requisites: courses 101, 102, 103. Research seminars on selected topics in economics. Reading, discussion, and development of culminating project. Consult Schedule of Classes for meeting times. May not be applied toward credit with topic change. P/NP or letter grading.

195A-195B. Community or Corporate Internships in Economics. I, II. (2–4) Tutorial, to be arranged. Requisites: courses 11, 101. Limited to junior/senior Economics majors. Internship to be supervised by Economics faculty members, and advanced graduate students. Internship to be supervised by Economics faculty mentor required. May not be repeated. Letter grading.

198BC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced requisite: course 188BS. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE 885 course. Individual study in regularly scheduled meetings with faculty mentor required. May not be repeated. Letter grading.

M188XP. Practicum in Social Entrepreneurship. (4) (Formerly numbered M188.) (Same as Community En- gagement and Social Change M188XP) Seminar, three hours. Enrollment priority to departmental majors. Offered during academic year for students engaged in full-scale immersion into challenges of launching social enterprise. Students work in teams alongside staff of local nonprofit organizations in 10-week social enterprise accelerator program aimed at helping participating organizations secure financial and operational resources they need to implement so- cial enterprise for which viable business plan has al- ready been constructed. Students meet assigned or- ganization, study its business plan, and work with in- structors of course and staff of nonprofit organization to develop tailored plan of work for 10-week acceler- ator. Students will work closely with staff of organization under supervision of instruc- tors and with assistance of experienced entrepreneur mentor. P/NP or letter grading.

199A-199B. Honors Internships. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be repeated for credit with topic change. P/NP or letter grading.

199HC. Honors Contracts. (1) Tutorial, three hours. Requisite: courses 101, 102, 103. Research seminars on selected topics in economics. Reading, discussion, and development of culminating project. Consult Schedule of Classes for meeting times. May not be applied toward credit with topic change. P/NP or letter grading.

199A-199B. Honors Internships. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be repeated for credit with topic change. P/NP or letter grading.
toward major requirements. May be repeated for credit with consent of department. Individual contract with supervising faculty member required. P/NP or letter grading.

198A. Honors Research in Economics I. (4) Tutorial, three hours. Requisites: courses 11, 101, 102. Limited to senior departmental honors program students. First term of two-semester sequence in which students develop honors thesis or comprehensive research project under direct supervision of faculty member. Individual contract required. In Progress grading (credit to be given only on completion of course 198B).

198B. Honors Research in Economics II. (4) Tutorial, three hours; discussion, one hour. Recommended for juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Letter or S/U grading.

199A. Directed Research in Economics. (4) Tutorial, three hours. Requisites: courses 11, 101, 102. Limited to graduate students with permission of the director of graduate studies. May be repeated for credit. Individual contract required. P/NP or letter grading.

199B. Directed Research in Economics/International Area Studies. (4) Tutorial, three hours. Students prepare research papers under guidance of faculty mentor on problems of a regional or international nature. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

Foundations of Economics

200. Mathematical Methods in Economics. (4) Lecture, three hours, Should be taken prior to enrollment in course 201A. Examination of mathematical methods used in graduate-level courses in microeconomics, macroeconomics, and quantitative methods. Topics include real analysis, linear algebra and matrices, calculus of many variables, static optimization, convex analysis, and dynamics and dynamic optimization. S/U grading.

200B. Mathematical Methods in Economics II. (4) Lecture, three hours; laboratory, two hours. Should be taken prior to or concurrent with course 201B. Linear algebra and some of its linear difference equation models. Basic real analysis, normed vector space/ Banach space, Hahn/Banach theorem, Schauder fixed point theorem, and theory of correspondences. S/U grading.


203A. Introduction to Econometrics I. (4) Lecture, three hours; discussion, one hour. Probability and statistical tools for econometric models. Topics include random variables, distribution and density functions, transformations, identification, sampling, estimators, asymptotic properties. S/U or letter grading.

203B. Introduction to Econometrics II. (4) Lecture, three hours; discussion, one hour. Identification and estimation and testing. Basic linear regression model, tests of hypothesis, generalized least squares, heteroskedasticity, multicollinearity, estimation and quantile dependent variables. S/U or letter grading.

203C. Introduction to Econometrics III. (4) Lecture, three hours; discussion, one hour. Econometric methods for time-series econometrics, including theory and applications. Topics include determining techniques, unit root theory, cointegrated system approaches, autocorrelation robust inference, Wald and Beveridge and Nelson (BN) decompositions, model selection, nonlinear stationarity models, spatial density asymptotics and nonparametric time-series models. S/U or letter grading.

204A. Applications of Economic Theory: California Population Research Topical Seminar Series. (4) (Same as Sociology M252A,) Seminar, three hours. Limited to California Center for Population Research (CCPR) affiliates. Examination of issues such as demography, health, aging, labor, and broad array of topics concerned with effects of economic, social, and political transformations on human behavior both in U.S. and abroad. S/U grading.

204B. Applications of Economic Theory: California Population Research Seminar Series. (4) Seminar, three hours. Examination of issues such as demography, health, aging, labor, and broad array of topics concerned with effects of economic, social, and political transformations on human behavior both in U.S. and abroad. May be taken independently for credit. S/U grading.

204C. Applications of Economic Theory: California Population Research Topical Seminar Series. (4) Seminar, three hours. Examination of issues such as demography, health, aging, labor, and broad array of topics concerned with effects of economic, social, and political transformations on human behavior both in U.S. and abroad. May be taken independently for credit. S/U grading.


208. Law and Economics Workshop. (2 or 3) Seminar, two hours. Requisite: course 201A or Management 405. Knowledge of empirical methods and basic calculus required. Interdisciplinary speakers series bringing together outside professors and students from UCLA School and academic departments. Topics include contracts, torts, intellectual property, and business law. Students write graded research papers. May be repeated for credit. Concurrently scheduled with Law 648 and Management 294. S/U or letter grading.

207. History of Economic Thought. (4) Lecture, three hours. Topics from classical economics, including work of Smith, Ricardo, and Mill, and developments from 1870s, including contributions of major figures of marginalist revolution, socialist controversy, and history of welfare economics. S/U or letter grading.

208. Introduction to Demographic Methods. (4) (Same as Biostatistics M208, Community Health Sciences M208, and Sociology M225A.) Seminar, three hours. Examination of issues such as demographic, health, aging, labor, and broad array of topics concerned with effects of economic, social, and political transformations on human behavior both in U.S. and abroad. S/U grading.

209A-209B-209C. PhD Research Seminar. (4-4-4) Seminar, three hours. Designed to help PhD students train for standardized testing (attending lectures, taking examinations) into creating independent research. Students are supported in developing their dissertation and professional skills in all aspects of process of creating their own research, including writing and presentation. Covered topics include demographic, decomposition of differences, life tables, survival analysis, cohort analysis, birth interval analysis, models of population growth, stable populations, population projection, and demographic data sources. Letter grading.

209A-209B-209C. PhD Research Seminar. (4-4-4) Seminar, three hours. Designed to help PhD students train for standardized testing (attending lectures, taking examinations) into creating independent research. Students are supported in developing their dissertation and professional skills in all aspects of process of creating their own research, including writing and presentation. Covered topics include demographic, decomposition of differences, life tables, survival analysis, cohort analysis, birth interval analysis, models of population growth, stable populations, population projection, and demographic data sources. Letter grading.

Economic Theory

211A. Contract Theory. (4) Lecture, three hours. Fundamental introductory undergraduate level course. Emphasis on economic problems and specific cases. Required prerequisite: course 201C. Study of trading relationships between small number of agents. Coverage of many tools and techniques used in models of moral hazard,
adverse selection, and incomplete contracting, starting with static models of moral hazard and mechanism design and development of their dynamic counterparts. Consideration of environments where agents cannot use formal contracts, studying relational contracts and trading relationships with no contracts. Analysis of wide variety of applications from industrial organization, corporate finance, personnel economics, and public choice.

211B. Economics of Uncertainty, Information, and Games. (4) Lecture, three hours. Preparation: introductory probability. Enforced requisite: course 201C. Theory of individual and group behavior under uncertainty, applied to topics such as asset pricing models, adverse selection, moral hazard, bargaining, signaling, auctions, and search. S/U or letter grading.

211C. Game Theory and Economic Applications. (4) Lecture, three hours. Preparation: introductory probability. Enforced requisite: course 201C. Intended for students who are interested in doing research in microeconomic theory and for students who want to acquire good theory background to do applied work. Coverage of combination of standard results in field and topics of current research, including notions of equilibrium in static and dynamic games, reasoning in games where incomplete information gives rise to games of incomplete information, and experiments. S/U or letter grading.

212A. Topics in Advanced Theory: Search Theory. (4) Lecture, three hours. Preparation: calculus, introduction to modern mathematical economics, and topics of current research, including notions of equilibrium in static and dynamic games, reasoning in games where incomplete information gives rise to games of incomplete information, and experiments. S/U or letter grading.

212B. Topics in Advanced Theory: Applied Game Theory. (4) Lecture, three hours. Preparation: calculus, introductory probability. Use of theory of Bayesian games to study bargaining, monetary theory, and oligopoly. Use of theory of mechanisms to study auction design and imperfectly competitive markets. May be repeated for credit. S/U or letter grading.

213A-213B. General Equilibrium and Game Theory. (4) Lecture, three hours. Requisite: course 201C. Selected advanced theoretical topics of current interest and introduction to modern mathematical economics, including general equilibrium theory and game theory. S/U or letter grading.

214A. Topics in Mathematical Economics: General Equilibrium Theory. (4) Lecture, three hours. Requisite: course 201C. Core convergence theorem, cooperative and noncooperative approach to competitive equilibrium theory, perfect competitive economy, no-surplus theorem, and applications to mechanism theory and incomplete market models. May be repeated for credit. S/U or letter grading.

M215. Topics in Applied Game Theory. (4) (Same as Political Science M208B.) Lecture, three hours. Preparation: calculus or introductory probability. Designated for graduate students and political science students. Survey and applications of major solution concepts to models of bargaining, oligopoly, cost allocation, and voting power. S/U or letter grading.


221B. Monetary Economics II. (4) Lecture, three hours. Emphasis on theoretical, historical, and policy aspects of monetary economics. Financial intermediation, bank panics, asset price volatility, game theoretic monetary models, and application of monopolistic competition, search and coordination failures, central bank operations, and evolution of monetary institutions. S/U or letter grading.


221D. Monetary Economics IV. (4) Lecture, three hours. Requisites: courses 202A, 202B, 202C. Emphasis on applied macroeconomics, with topic change each year. Students select one particular data set to study. Each week class studies article from recent work in applied macroeconomics or applied econometrics that teaches or illustrates one theoretical restriction on data. Subgroups of students report back to class using technique on their selected data set. S/U or letter grading.

222B-222Z. Topics in Monetary Economics. (4 each) Lecture, three hours. Current research in monetary economics. Content varies. May be repeated for credit. S/U or letter grading.

C226A-C226B-C226C. Seminars: Monetary Economics/Macroeconomics. (4–4–4) Seminar, three hours. Designed for predissertation and dissertation writers. Overview of most current developments in monetary economics and macroeconomics for advanced graduate and graduate students. Introduction to graduate-level research in this field. Different topic each week, with presentation and discussion of new papers. Research in progress presented, discussed, and criticized by visiting experts, UCLA faculty members, and advanced graduate students. Concurrently scheduled with courses C166A-C166B-C166C. S/U or letter grading.


229A-229B-229C. Workshops: Monetary Economics. (4–4–4) Lecture, three hours. Topics of current research. Research in progress presented, discussed, and criticized by visiting experts, UCLA faculty members, advanced graduate students, and advanced graduate students. Research paper or presentation required. S/U grading.

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LASSO and Dantzig Selector techniques, and bootstrap. May be repeated for credit. S/U or letter grading.

M232A. Topics in Econometrics: Bayesian Econometrics. (4) (Same as Political Science M228E.) Lecture, three hours. Requisites: courses 231A, 231B. Subjective probability, introduction to decision theory, Bayesian analysis of regression, sensitivity analysis, simulation of models, criticism. May be repeated for credit. S/U or letter grading.


244. U.S. Labor Markets and Public Programs since 1940. (4) Lecture, three hours. Designed for PhD students. Introduction to current research at intersection of labor economics, public economics, and U.S. economic history, focusing on period after 1940. Topics include economic and wage inequality; intergenerational mobility; increasing (and stalling) educational attainment; changes in health and health care; Great Migration; gender gap in pay and rise of married women’s market work; baby boom and bust; racial inequality from slavery to Civil Rights era; and war on poverty. S/U or letter grading.

C246A-C246B-C246C. Seminars: Economic History. (4–4–4) Seminar, three hours. Designed for predissertation and dissertation writers. Overview of most current developments in economic history for advanced undergraduate and graduate students. Introduction to graduate-level research in this field. Different topic each week, with presentation and discussion of new papers. Research in progress presented, discussed, and criticized by visiting experts, UCLA faculty members, and advanced graduate students. Concurrently scheduled with courses C186A-C186B-C186C. S/U or letter grading.

Economics


Public Finance


251B. Cost-Benefit Analysis of Public Projects and Programs. (4) Lecture, three hours. Requisite: course 251A. Presentation of those aspects of applied capital theory that are relevant in decisions concerning investment projects in first part of course. Differences between social and private benefits and costs (shadow prices) for foreign exchange, capital, and labor, with applications to public investment decisions, in second part of course. S/U or letter grading.


253A-253Z. Topics in Public Finance. (4 each) Lecture, three hours. Content varies. Topics include Social Security taxes and programs, unemployment insurance, public provision of medical care, theory of public goods, and theory of public choice. May be repeated for credit. S/U or letter grading.

254A-254B-254C. Workshops: Public Economics. (4–4–4) Lecture, three hours. Designed for graduate students. Workshops for advanced graduate students. Research in progress discussed by graduate students, UCLA faculty members, visiting experts. S/U grading.

Applied Microeconomics


261B. Labor Economics II. (4) Lecture, three hours. Requisite: course 261A. Models of life-cycle learning and work behavior, with particular emphasis on recent literature on labor supply, fertility, and life-cycle behavior and experiences of women. S/U or letter grading.

262A. Topics in Labor Economics. (4) Lecture, three hours. Current research in labor economics. Content varies. May be repeated for credit. S/U or letter grading.

262D. Topics in Labor Economics: Development Economics. (4) Lecture, three hours. Preparation: completion of firstr year graduate microeconomics and econometrics courses. Coverage of important key topics in microeconomics of development, such as health, education, risk coping, savings, credit, and household economics. Discussion of empirical methods. S/U or letter grading.

262F. Topics in Labor Economics: Public Sector Microeconomics. (4) Lecture, three hours. Preparation: completion of first-year graduate microeconomics and econometrics courses. Coverage of topics related to tax incidence, deadweight loss, public expenditure, income tax and transfer programs, with emphasis on impacts of such programs on labor supply and savings, social security, unemployment insurance, and other insurance programs. S/U or letter grading.

262P. Topics in Labor Economics. (4) Lecture, three hours. Current research in labor economics. Content varies. May be repeated for credit. S/U or letter grading.

263. Topics in Urban Economics. (4) Lecture, three hours. Current research in urban and regional economics. Content varies. Serves as forum for presenta- tion of papers on urban economics by students, UCLA faculty members, and visitors. May be repeated for credit. S/U or letter grading.


266A-C266B-C266C. Seminars: Labor Economics. (4–4–4) Seminar, three hours. Quarterly seminars for predissertation and dissertation writers. Overview of most current developments in labor economics for advanced undergraduate and graduate students. May be repeated for credit. S/U or letter grading.

267A-C276B-C276C. Seminars: Industrial Organization. (4–4–4) Seminar, three hours. Designed for predissertation and dissertation writers. Overview of most current developments in industrial organization for advanced undergraduate and graduate students. Introduction to graduate-level research in this field. Different topic each week, with presentation and discussion of new papers. Research in progress presented, discussed, and critiqued by visiting experts, UCLA faculty members, and advanced graduate students. Concurrently scheduled with courses C176A-C176B-C176C, S/U (C266B) and S/U or letter (C266A, C266C) grading.


International Economics


271B. Industrial Organization, Price Policies, and Regulation. II. (4) Lecture, three hours. Requisite: course 271A. Study of firm organization and pricing under conditions of less than perfect competition; inter-
cussion of new papers. Research in progress pre-
sented, discussed, and criticized by visiting experts, 
UCLA faculty members, and advanced graduate stu-
dents. Concurrently scheduled with courses C126A-
C126B-C126C. S/U grading.

Development Economics

286A. Economic Development. (4) Lecture, three hours. Requisites: courses 201C, 202C. Study of theoretical and 
empirical problems related to developing coun-
tries. Emphasis on relation between international trade and 
economic development, dynamic aspects of 
commercial policies, inflation, stabilization, structural 
adjustment, growth and migration. S/U or letter 
grading.

286B. Cost-Benefit Analysis of Development Proj-
ects. (4) Lecture, three hours. Requisite: course 286A. 
Methodology for evaluating investment projects, their use in 
special attention to types of issues that arise in develop-
ing countries. Discussion of social versus private 
evaluation criteria; applications to highway, electricity, and 
irrigation projects. S/U or letter grading.

287A. Topics in Development Economics: Economic 
Problems of Latin America. (4) Lecture, three hours. 
Economic history of Latin America. Great depression, 
import substitution and industrialization, inflation and 
growth. Trade deficits and external debt. Topics of 
recent interest to the students. Introduction to models and 
economic integration. May be repeated for credit. S/U or letter 
grading.

287B. Topics in Development Economics: Economic 
Development in East Asia. (4) Lecture, three hours. Recent 
development in East Asia, focusing on postwar development of Japan, Korea, and China. Emphasis on role of international investment and 
trade, especially with U.S., in area’s economic develop-
ment. May be repeated for credit. S/U or letter grading.

287C. Topics in Development Economics: Economic 
Development. (4) Lecture, three hours. Designed for 
graduate students. Topics in monetary and exchange 
rate policy in developing countries. Students expected to 
develop analytical tools and underlying policy is-
S/U or letter grading.

287D. Topics in Development Economics. (4) 
Lecture, three hours. Current research in development 
economics. Content varies. Courses in this sequence not 
ordinarily given every year. May be repeated for credit. 
S/U or letter grading.

288A-288B-288C. Proseminars: International and 
Development Economics. (4–4–4) Seminar. Three 
hours. Quarterly seminars for presidertation and dis-
sertation writers on current issues in international trade and 
finance and development economics. Presentation of 
work-in-progress for feedback from faculty and 
other graduate students. Presentation or re-
search paper required. S/U grading.

291A. Asset Pricing. (4) Lecture, three hours. Intro-
duction to the practice of evaluating financial assets, 
their use in hedging and diversification of financial 
risks, and in portfolio management. Emphasis on 
valuation of firms, and embedding of these models in 
equilibrium for purposes of under-
standing market valuation of corporate sector as 
whole. Introduction also to continuous-time search-
and-matching models and their applications to finan-
cial economics. S/U or letter grading.

291B. Asset Pricing. (4) Lecture, three hours. Recent 
theoretical and empirical research on monetary policy. 
Includes issues such as how monetary policy is imple-
mented in practice. What are effects of different mon-
etary policy tools, what restrictions on government 
does monetary policy impose, transmission mecha-
nisms of monetary policy, linking macroeconomics 
and microeconomics, and non-linear effects in inflation, 
how does monetary policy interact with credit markets and 
how does it affect asset prices. S/U or letter grading.

291C. Asset Pricing. (4) Seminar, three hours. Designed for 
presidertation and dissertation writers. Overview of most current 
developments in asset pricing theory for advanced 
undergraduate and graduate students. Introduction to 
graduate-level research in this field, focusing on different topics 
each week, with presentation and discussion of new 
papers. Research in progress presented, discussed, and 
criticized by visiting experts, UCLA faculty mem-
bers, and advanced graduate students. Concurrently 
scheduled with courses C146A-C146B-C146C. S/U (C296B) and S/U or letter (C296A, C296C) grading.

296A-296B-296C. Proseminars: Asset Pricing. (4–4– 
4) Seminar, three hours. Designed for presiderta-
tion and dissertation writers on empirical issues in 
asset pricing, broadly defined. Presentation of 
work-in-progress or background material for pro-
posed dissertation topics. Written assignments discussed 
S/U grading.

Teaching Practicum

375. Teaching Apprentice Practicum. (1 to 4) Semi-
inar, to be arranged. Preparation: apprentice per-
sonnel employment as teaching assistant, associate, 
or fellow. Teaching apprenticeship under active guid-
ance and supervision of regular faculty member re-
sponsible for curriculum and instruction at UCLA. May 
be repeated for credit. S/U grading.

Master of Quantitative Economics

401A. Microeconomic Theory. (4) Lecture, three hours. 
Limited to Master of Applied Economics students. 
Coverage of fundamentals of optimization, choices by 
price-taking agents, consumer and producer surplus, 
monopoly and competition, Walrasian equilibrium and 
two welfare theorems, constant returns to scale 
and empirical problems related to developing coun-
tries. Emphasis on relation between international trade 
and empirical problems related to developing coun-
tries. Introduction to models and data used to understand 
connection between asset prices, health of financial 
sector, and macroeconomics, including review of recent papers to 
gain introduction to questions being addressed 
on research frontier. Letter grading.

401B. Applied Microeconomics. (4) Lecture, three hours. 
Limited to Master of Applied Economics students. 
Introduction to main topics of graduate macroeco-

402A. Macroeconomic Theory. (4) Lecture, three hours. 
Limited to Master of Applied Economics students. 
Introduction to monetary and fiscal policy and modifica-
tions of Keynesian ideas designed to explain financial crises. Letter grading.

402B. Applied Macroeconomics. (4) Lecture, three hours. 
Limited to Master of Applied Economics students. 
Introduction to statistical methods and econometric techniques. Letter grading.

403A. Introduction to Statistical Methods and 
Econometrics. (4) Lecture, four hours. Limited to 
Master of Applied Economics students. Introduction to 
probability, statistics, econometrics, and time-se-
ries methods used in economics, business, and 
government. Topics include random variables, hypothesis 
testing, estimation, distribution functions, simple and 
multiple regression, and estimation with stationary/ 
nonstationary processes. Letter grading.

403B. Applied Econometrics. (4) Lecture, three hours. 
Limited to Master of Applied Economics students. 
Basic tools necessary for high-level cutting-edge em-
pirical research. Coverage of variety of methods suited 
for empirical studies that apply to experimental data, 
quasi-experimental data, panel data, and cross-sec-
tional data. Letter grading.

404A. Writing and Presentation Skills for Econo-
mists I. (4) Seminar, three hours. Limited to Master of 
Applied Economics students. Designed to help stu-
dents develop communication and presentation skills 
for success in any aspect of business. Prac-
tice in writing economics documents for variety of 
pro-
spective clients. Writing workshop as essential skill 
for brainstorming, collaborating, continually revising, 
and challenging ideas. Presentation skills to focus on 
presen-
tation of ideas clearly and organizing ideas, with 
emphasis on non-verbal presentation, be-

404B. Writing and Presentation Skills for Econo-
mists II. (4) Seminar, three hours. Limited to Master of 
Applied Economics students. Builds on skills learned in 
course 404A. Focuses on summarizing, critiquing, and 
report writing. Process writing used and self-editing skills stressed. Presentations in-
clude summary/critique, opinion piece, and final group 
presentation that includes proposals. Grammar incor-
porated as needed, especially in regard to writing. Letter grading.

(4) Lecture, three hours. Limited to Master of Applied Economics students. Advanced understanding of 
some major macroeconomic implications of in-
creasing integration of world economy through trade 
linkages, multinational production, and financial mar-
tets. Letter grading.

406. Money and Banking. (4) Lecture, three hours. 
Limited to Master of Applied Economics students. In-
troduction to models and data used to understand 
connection between asset prices, health of financial 
sector, and macroeconomics, including review of recent papers to 
gain introduction to questions being addressed 
on research frontier. Letter grading.

407. Economics of Entrepreneurship. (4) Lecture, 
three hours. Limited to Master of Applied Economics students. Examination of role and entrepreneurship 
and entrepreneurial strategies—source of ideas, value cre-
ation, market development, scaling, exit strategies. Group practice of entrepreneurship. Development of 
original ideas into business plan. Letter grading.

408. Environmental Economics. (4) Lecture, three 
hours. Limited to Master of Applied Economics stu-
dents. Introduction to major ideas in environmental economics by studying causes and consequences of 
air and water pollution, with special emphasis on understanding China’s environmental challenges and policy options. Letter grading.

409. Forecasting Asset Prices. (1 to 4) Lecture, three 
hours. Limited to Master of Quantitative Economics 
students. Introduction to recent developments in inter-
national finance. Coverage of lending booms and fi-
nancial crises both theoretically and empirically, as 
well as foreign exchange market anomalies and differ-
ent approaches to forecasting exchange rates. Letter grading.

410. Economists in Action. (1 to 2) Seminar, three 
hours. Limited to Master of Applied Economics stu-
dents. How theory maps into policymaking. Re-
nowned policymakers from Central Banks, Economics Ministries, and International Organizations to lecture on policy-related topics. Completion of assignments linking lectures with economic theory and real-world 
events. Letter grading.

411. Inequality and Macroeconomy. (4) Lecture, 
three hours. Limited to Master of Applied Economics 
students. Introduction to modern economic in-
equalities and interplay between inequality and mac-
roeconomy. What are relative roles of market forces and institutions in shaping dynamics of economic in-
equality? What are consequences of globalization on distribution of income within and between countries? Does inequality hamper economic growth and macro-
economic stability? How do macroeconomic policies and 
structural reforms affect distribution of income 
and wealth? Use of simple models and empirical anal-
ysis by taking global and historical perspective. Dis-

cussions about inequality in U.S. and Europe over last 
two centuries, as well as challenges raised by recent 

412. Fundamentals of Big Data. (4) Lecture, three 
hours. Limited to Master of Applied Economics students. Introduction to basic concepts and challenges of 
big data, with emphasis on pragmatic hands-on appli-
cations using real-world data for current and future big 
data practitioners—consumers of big data insights for 
economic applications. Letter grading.

413. Data Analytics and Big Data. (4) Lecture, three 
hours. Recommended corequisite: course 412. Lim-
ited to Master of Applied Economics students. De-
signed for end users of big data, those who translate 
analytic results into business applications, with guest 
lecturers from wide spectrum of industrial and corpo-

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rate big data users. Presentations of their business models for leveraging big data, sharing of data sets, and guiding students to extract actionable business insights for those industries. Letter grading.


415. Evidenced-Based Policy Analysis in Labor, Public, and Health Economics. (4) Lecture, three hours. Limited to Master of Applied Economics students. Introduction to key policy questions in labor, public, and health economics, including health care, education, unemployment, training programs, and welfare. Economic principles at heart of these topics and main approaches to scientifically evaluate policies that affect them, including data, current case evidence, and empirical methods, and their relation to microeconomic theory. Letter grading.

421. Incentives, Information, and Markets. (4) Lecture, three hours; discussion, one hour. Limited to Master of Applied Economics students. Introduction to key concepts of economics that lie at heart of modern economics and application of them to understand incentives within firms, as well as competition between theoretical models and functioning of real-life markets, such as insurance, labor, and consumer markets. Consideration of whether we can design policies that improve market outcomes? Core economic tools, and how to tie data and theory together. Letter grading.

422. International Economics. (4) Lecture, three hours; discussion, one hour. Limited to Master of Applied Economics students. Investigation of several theoretical frameworks in international economics followed by applications to empirical questions. Neoclassical trade models, analysis of firms and heterogeneous producers, and economic geography topics. Case studies and focus on understanding determinants of trade patterns and on measurement of aggregate and distributional effects of international trade. Discussion of recent research on effects of NAFTA and Brexit, effect of trade on inequality in developed and developing countries, and impact of infrastructure investments on trade and development. Letter grading.

423. Introduction to Applied Data Science. (4) Lecture, three hours; discussion, one hour. Limited to Master of Applied Economics students. Designed to build strong bases in tools and methods of data science and analytics. Introduction of tools for capture, transformation, integration, and analysis of data for downstream processing in analytics pipeline line. Introduction of analytics subsystems and scalable storage and processing of very large and complex datasets. Information theory, computational analysis, and behavioral economics with specific emphasis on data science in economics. Letter grading.

424. Income Inequality. (4) Lecture, three hours; discussion, one hour. Limited to Master of Applied Economics students. Investigation of rise of earning inequality (with emphasis on U.S.), focusing on learning how to use data to quantify and explain range of forces on inequality. Overview of broad empirical trends, with emphasis on understanding how to document these facts ourselves. Consideration of three classes of potential explanations for these patterns: international connections (e.g., trade and immigration), institutional change (e.g., minimum wage and unionization), and technical change (e.g., computerization). Focus on understanding how to measure these forces ourselves. Study of top income inequality: why have extremely rich become much richer than very rich? Focus on CEO compensation. Letter grading.

425. Machine Learning for Economists. (4) (Formerly numbered 425.) Lecture, three hours; discussion, one hour. Limited to Master of Applied Economics students. Covers set of fundamental machine learning algorithms, models, and theories, and introduces advanced engineering practices for implementing data-intensive intelligent systems. Topics involve both supervised methods (e.g., support vector machines), unsupervised methods (e.g., clustering, dimensionality reduction, etc.), and their applications in classification, regression, data analysis, and visualization. Letter grading.

426. Knowledge Discovery and Data Mining. (4) Lecture, three hours; discussion, one hour. Limited to Master of Applied Economics students. Study of theoretical and practical techniques in field of data mining and knowledge discovery. Topics include data processing, clustering, anomaly detection, regression, and classification. Focus on making sense of large-scale or web-scale datasets, with first-hand project experiences. Letter grading.

427. Applied Machine Learning. (4) Lecture, three hours; discussion, one hour. Limited to Master of Applied Economics students. Preparation: basic understanding of technology principles, basic programming skills, sufficient mathematical background in probability, statistics, and matrix analysis. Foundational course with primary application to data analytics, in order to be able to apply concepts to ground such as economics or mathematics, and to students from less technical backgrounds. Covers some fundamental topics in machine learning such as Bayesnet, regression tree, metric learning, and various classification, regression, clustering techniques, and other advanced topics. Real-world data-intensive problems. Letter grading.

428. Health Care Analytics: Methods and Applications. (4) Lecture, three hours; discussion, one hour. Limited to Master of Applied Economics students. Introduction to basic concepts of health economics. Development of skills in evaluating and real-world data analysis. Written policy briefs and business cases evaluating pros and cons of different approaches to improving health care markets. Letter grading.

429A. Professional Development for Emerging Economists I. (1 to 2) Seminar, two hours. Limited to Master of Applied Economics students. Designed to help students develop professional skills essential for success in professional business settings. Aids student in translating topics covered in other courses into language and format that is accessible to industry/non-academic settings. Topics include preparation and public setting, researching employment market, and résumé writing. Letter grading.

429B. Professional Development for Emerging Economists I. (1 to 2) Seminar, two hours. Enforced prerequisite: course 429A. Limited to Master of Applied Economics students. Designed to help students develop professional, communication, and presentation skills essential for success in professional business settings. Aids students in translating topics covered in other courses into language and format that is accessible to industry/non-academic settings. Topics include preparation and public setting, researching employment market, and résumé writing. Letter grading.

430. Applied Econometrics with Python. (3 to 4) Lecture, three hours; discussion, one hour. Limited to Master of Quantitative Economics students. Introduces finance and quantitative methods to economics, business, and government using Python. Topics include simple and multiple regression, cross-sectional and panel data, instrumental variables, and binary-choice models. Letter grading.

431. Introduction to Econometrics, Cross-sectional and Panel Data, and Time Series. (4) Lecture, three hours; discussion, one hour. Limited to Master of Applied Economics students. Introduction to econometric models, estimation, prediction, and risk measures. Covers topics used in economics, business, and government. Topics include estimation, simple and multiple regression, cross-sectional and panel data, instrumental variables, and estimation with stationary/non-stationary processes. Letter grading.

432. Data Science for Financial Time Series. (4) Lecture, three hours; discussion, one hour. Limited to Master of Applied Economics students. Data science provides many useful tools for modeling financial data and testing hypotheses on how markets work, and for creating new financial engineering tools. Study of econometric models and methods to understand financial market dynamics. Topics include returns of financial assets, statistical tests on financial market efficiency, linear, time series hour. Limited to varying expected return models, heteroscedastic volatility models, optimal portfolio choice, capital asset pricing models, factor models, portfolio allocation, trading strategies in financial time series modeling.

433. Core Finance. (4) Lecture, three hours; discussion, one hour. Limited to Master of Applied Economics students. Introduction to core principles of asset valuations. Emphasis on common economic reasoning used in valuation problems. Derivations and study of valuation formulas for three broad asset classes: fixed income securities, equity, and derivatives. Practical applications to investment problems, and emphasis on current financial topics.

434. Machine Learning and Big Data for Economists. (4) Lecture, three hours; discussion, one hour. Limited to Master of Applied Economics students. Covers many machine learning techniques including lasso, regression trees, random forests, and neural networks. Covers most recent developments at intersection of machine learning and economics, now commonly referred to as double machine learning. Study of double machine learning in detail, and discussion of how to apply it to enhance analysis of classical econometric problems, such as program evaluation and demand estimation. Letter grading.

435. Principles of Big Data Management Systems. (4) Lecture, three hours; discussion, one hour. Limited to Master of Applied Economics students. Focus on modern data management systems that are used in data analytics. Students are exposed to cutting-edge data management concepts and systems and provided with working knowledge needed to manage large-scale data. Covers modern data management practices in cloud storage systems, NoSQL data bases, and map-reduce computing paradigm. Letter grading.

436. Introduction to Financial Accounting. (4) Lecture, three hours; discussion, one hour. Limited to Master of Applied Economics students. Financial accounting is concerned with preparation and public dissemination of financial reports designed to reflect corporate performance and financial condition. By studying these reports, investors can evaluate the performance and financial condition of companies, and creditors, and other interested parties. Financial markets depend on information contained in these reports to evaluate executives, estimate future stock returns, assess firms’ riskiness, and allocate society’s resources to their most productive uses. Letter grading.

437. Health Economics: Understanding Roles of Regulation, Public Policy, and Demographic Change. (4) Lecture, three hours; discussion, one hour. Limited to Master of Applied Economics students. Applied microeconomics study of economics of health care. Examination of health care costs, functioning of health care sector, structure of insurance markets, and current public health issues. Study of how underlying economic concepts such as adverse selection and moral hazard lead to markets failures. Examination of impact of policy and demographic change on future costs. Letter grading.

441A. Applied Data Management for Economists. (4) Lecture, three hours. Limited to Master of Applied Economics students. Introduction to data management practices in data gathering, cleaning, and warehousing. Topics include web scraping using application programming interfaces, engineering of R packages, and data manipulation in Structured Query Language (SQL). Emphasis on applications of data pipeline expected of entry-level analyst. Supplements Master of
Applied Economics coursework by offering solutions to expedite R coding techniques and dissemination of analytic findings. Letter grading.


441C. Applied Data Management for Economists. (1) Lecture, three hours. Limited to Master of Applied Economics students. Introduction to business intelligence software relevant for big data and financial services companies. Survey of Amazon Web Services, Microsoft Power BI, and Apache Hadoop, and deployment of automated solutions on these platforms. Development of presentation skills necessary for industry. S/U or letter grading.


442B. Master of Applied Economics Finance Laboratory. (1) Lecture, three hours. Recommended: courses 430, 431. Limited to Master of Quantitative Economics students. Outlook of economy is of vital importance for many key decisions. Introduction to theory and application of cutting-edge tools used by economists and business leaders to inform their views of economy. These tools are applied to forecast or forecast key economic indicators such as inflation, unemployment, and gross domestic product. Examination of how forecasts of fundamentals can be used to inform our views on asset prices. Letter grading.


448. Applications of Cloud Computing and Blockchain. (2 to 4) Lecture, three hours. Use of computational techniques to model supply chain and smart contracts to make business processes more efficient through technical and theoretical application. Letter grading.

452. Empirical Industrial Organization. (4) Lecture, three hours; discussion, one hour. Limited to Master of Quantitative Economics students. Introduction to empirical methods and applications in industrial organization (IO). Development of empirical toolkit to estimate industry models of demand and supply and apply it to analysis of emerging issues in IO from regulator, consumer, and firm perspective. Underlying theme is that most real-world markets are neither perfectly competitive, nor strict monopolies, but rather involve strategic interactions among firms and consumers. To capture these interactions empirically, development of empirical models of consumer demand and firm competition, and use of these models to analyze interactions of firm strategies (including pricing, product quality choices, and advertising) and market structure across range of industries. Letter grading.

Special Studies

455. Teaching College Economics. (2) Seminar, one hour; laboratory, three hours. Designed for graduate students. Required of all new teaching assistants. Classroom practice in teaching, with individual and group instruction on related educational methods, materials, and evaluation. May be repeated for credit. S/U grading.

501. Cooperative Program. (2 to 8) Tutorial, to be arranged. Preparation: consent of UCLA graduate adviser and graduate dean, and host campus instructor, department chair, and graduate dean. Used to record enrollment of UCLA students in courses taken under cooperative arrangements with USC. S/U grading.

596. Individual Study. (2 to 8) Tutorial, to be arranged. Directed individual study or research. S/U grading.

597. Individual Study: Graduate Examinations. (2 to 8) Tutorial, to be arranged. Directed individual study in preparation for MA comprehensive examination or PhD qualifying examinations. S/U grading.


EDUCATION

School of Education and Information Studies

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Education

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School e-mail

Cecilia Rios-Aguilar, PhD, Chair

Faculty Roster

Professors

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Walter R. Allen, PhD (Allan Murray Carter Professor of Higher Education)
Ron Avi Astor, PhD (Marjorie Crump Professor of Social Welfare)
Alison L. Bailey, EdD
Li Cai, PhD
Mitchell J. Chang, PhD
Christina A. Christie, PhD
Richard Desjardins, PhD
Megan L. Franke, PhD
Kimberly Gomez, PhD
Louis M. Gomez, PhD
Sandra H. Graham, PhD (Presidential Professor of Education and Diversity)
Tyronne C. Howard, PhD (Pitzer Family Endowed Professor of Education to Strengthen Families)
Sylvia Hurtado, PhD
Connie L. Kasari, PhD
Catherine Lord, PhD, in Residence
Teresa L. McCarty, PhD (George F. Kneller Professor of Education and Anthropology)
Rashmita S. Mistry, PhD

Connie L. Kasari, PhD
Sylvia Hurtado, PhD
Li Cai, PhD
Megan L. Franke, PhD
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Rashmita S. Mistry, PhD
Adjunct Professors
Gregory K. Chung, PhD
Diane Durkin, PhD
Faye C. Peitzman, PhD
Jody Z. Priselac, EdD
Karen Hunter Quartz, PhD
Jia Wang, PhD

Adjunct Associate Professor
Mark P. Hansen, PhD

Adjunct Assistant Professor
Kristen L. Rohanna, PhD

Overview
As one of the top-ranked public graduate programs in education in the nation, the Department of Education is guided by a commitment to integrate theory and practice and to improve educational practice and policy. The department attracts prominent scholars and is internationally recognized for its research centers in evaluation, higher education, child development, and urban education. Whether students choose to pursue a Doctor of Philosophy (PhD), a Doctor of Education (EdD), a master’s degree, or a services or instructional credential, they graduate with a broad understanding of educational theory and tested practice.

Undergraduate Major
Education and Social Transformation BA

Learning Outcomes
The Education and Social Transformation major has the following learning outcomes:

- Understanding of educational landscape
- Understanding of learning and human development
- Understanding of education and educational institutions in social, cultural, and historical contexts
- Understanding of organizational cultures and dynamics
- Ability to interpret social data and research and critically evaluate research studies
- Ability to apply these understandings to imagine, assess, and implement solutions to specific problems in education
- Clear and cogent communication
- Understanding of multiple perspectives, diversity, pluralism, and social justice

Entry to the Major
Pre-major
Students entering UCLA directly from high school can select the Education and Social Transformation pre-major on the UCLA admission application. Transfer students may also select the pre-major. See Transfer Students for details.

Continuing students who were not admitted directly to the pre-major may apply for admission if they are able to complete the preparation for the major by the end of their second year to apply by the fall of their third year.

Admission
Students must submit an application to declare the Education and Social Transformation major. Admission is based on academic performance in preparation for the major courses and overall academic record at UCLA. The application is available on the major website.

First-Year Students
After completing the required lower-division courses and 45 lower-division units, students identified as Education and Social Transformation pre-majors may formally apply to declare the major.

Transfer Students
Transfer applicants to the Education and Social Transformation major with 90 or more units are considered for admission based on academic achievement. Transfer credit is subject to department approval. Consult an undergraduate counselor before enrolling in any courses for the major.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Transfer students who were not admitted directly to the Education and Social Transformation pre-major may apply for admission if they are able to complete the preparation for the major by the end of their second quarter at UCLA.

Requirements
Preparation for the Major
Required: Education 10 or 11, and 35.

The Major
Required: at least nine upper-division courses distributed as follows:

1. Two courses from each of the following three areas of competency: Histories and Philosophy of Education—Education 100 through 119; Contexts of Teaching, Learning, and Development—Education 120 through 149; Inquiry and Design for Learning—Education 150 through 169
2. At least one additional course in education, which may come from any of the areas of competency or from courses designated as electives (Community Engagement and Social Change 130, Education 170 through 179)
3. Education 180
4. One community engagement course selected from Education M129XP, M130AX, M130BX, M130CX, M131A, M131B, M131C, M142, M144XP, M159, M171, M176, M195, M195CE, or M196XP (this course may also be applied toward an area of competency). Students must complete Education 180 prior to taking a community engagement course
5. Capstone course: Education 181. Students must complete five out of the six courses from the areas of competency and complete the community engagement course requirement before enrolling in the capstone course
Policies

Preparation for the Major
Preparation for the major courses must be completed with a C grade or better.

The Major
Each course must be taken for a letter grade and be a minimum of 4 units. Students must have a grade-point average of 2.0 or better in upper-division education courses.

Undergraduate Minors

Education Studies Minor

The Education Studies minor is intended to address the diverse information needs of the UCLA undergraduate community to allow students to learn more about the multitude of contemporary professional research issues confronting the field of education, understand the complex interactions between the legal, social, political, and economic forces that influence and shape educational policies in America, provide an introduction for students who wish eventually to pursue careers in education either as teachers or researchers.

Admission

To enter the minor, students must have at least sophomore standing with a cumulative grade-point average of 2.3 or better, have completed one education course with a grade of C or better, and submit the minor application. Applicants are expected to be committed to inquiry of issues central to educational research and practice. Students must follow the program of study in effect at the time of their admission.

Students may apply for admission once they have completed one approved Education course. Students must apply by the spring quarter of their third year.

The Minor

Required Courses (28 units minimum): Any seven education courses (minimum of 4 units each), one of which may be a lower-division course.

Policies

A maximum of 8 graded units of Education 195 through 199 may be applied toward the minor.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade and be a minimum of 4 units. Students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Information and Media Literacy Minor

The Information and Media Literacy minor is designed for students who wish to augment their major program with a group of related courses that provide a systematic, focused, and critical introduction to information and media literacies. The core courses together with electives provide students with an understanding of the processes, dynamics, and societal implications of the production and dissemination of information and media and skills for their judicious evaluation, consumption, and productive use.

Admission

To enter the minor, students must have a cumulative grade-point average of 2.3 or better, have completed one required lower-division or upper-division course with a grade of B or better, and submit the minor application. Applications are available on the minor website.

The Minor

Required Lower-Division Core Courses (10 units): Two courses selected from Information Studies 10, 20, 30.

Required Upper-Division Core Courses (9 units): Information Studies C115, M121 (or Education M121).


Policies

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade and be a minimum of 4 units. Students must have a cumulative grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Majors

Doctor of Education

Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Articulated Degree Program

Articulated degree programs permit no credit overlap; students must complete degree requirements separately for each degree.

Concurrent Degree Program

Concurrent degree programs allow students to reduce the number of courses required for two degrees, since some courses may apply to both degrees.

Concurrent Degree Program

Concurrent degree programs allow students to reduce the number of courses required for two degrees, since some courses may apply to both degrees.

• Master of Education/Latin American Studies MA

• Doctor of Education/Juris Doctor

Education MA, PhD

Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Articulated Degree Program

Articulated degree programs permit no credit overlap; students must complete degree requirements separately for each degree.

Concurrent Degree Program

Concurrent degree programs allow students to reduce the number of courses required for two degrees, since some courses may apply to both degrees.

• Education MA, PhD/Juris Doctor

Educational Administration

EdD

The Department of Education offers a Doctor of Education (EdD) degree in Educational Administration jointly with UC Irvine.

Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Master of Education

Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Articulated Degree Program

Articulated degree programs permit no credit overlap; students must complete degree requirements separately for each degree.

Concurrent Degree Program

Concurrent degree programs allow students to reduce the number of courses required for two degrees, since some courses may apply to both degrees.

• Master of Education/Juris Doctor

Education / 409
Special Education PhD

The Department of Education offers a Doctor of Philosophy (PhD) degree in Special Education jointly with California State University, Los Angeles.

Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in program announcements, other publications, and websites of the schools, departments, and programs.

Education

Lower-Division Courses

10. Introduction to Educational Issues and Scholarship. (8) Lecture, two hours; discussion, two hours. Introduction to broad landscape of public education in U.S. Intended for those interested in educational research, policy, or teaching in both formal and informal educational contexts. Readings highlight work of educational researchers from UCLA Department of Education, especially ways their scholarship intersects with policy and practice. Students work in groups to identify real-life problem affecting public education in Los Angeles. Study of this problem from multiple perspectives. Conceptualization of socially-just solution. Letter grading.

11. Education, Equality, and Future of American Society: Problems, Prospects, and Policies. (5) Lecture, four hours. Lecture. Schools are primary institutions charged with responsibility of preparing young people for their roles as citizens so that they can participate in our democracy. Public schools also serve as key sites where two essential, and at times conflicting, functions are carried out: students are sorted based on measures (and perceptions) of their ability to fill occupations and roles that are essential to economy; and students are educated in hopes that next generation will acquire knowledge, creativity, and problem-solving skills to solve problems created by previous generations. Focus on understanding challenges, contexts, and complex issues associated with carrying out these functions. Letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current political, social, and economic importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

35. Introduction to Inquiry and Research in Education. (9) Lecture, two hours; discussion, two hours. Introduction to empirical and analytical educational research. Intended for undergraduates interested in learning how to find, interpret, and evaluate educational research. Overview of different methods of conceptualizing inquiry and gathering evidence, including qualitative approaches (e.g., ethnographic, semi-structured interviews, case study), quantitative approaches (e.g., survey, measurement, experimental, descriptive, statistical methods, and design-based research). Highlights multiple methods of inquiry and research, ethics of conducting research in social sciences, and norms of conducting and reporting research in field of education. Overview of selected strands of equity-oriented research in education. Letter grading.

89H. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

Upper-Division Courses

100. Introduction to Philosophy of Education. (5) Seminar, four hours. Introduction to major Western philosophical thinkers on education including Dewey, Freire, Froebel, Leibniz, Locke, Rousseau, and others. Examination of ultimate goals of education, content of education, and processes of teaching and learning according to these theorists and their influences on later educational thought and practice. Assignments include readings, response papers, film analyses, educator interviews, document analysis (for their underlying educational philosophy), and proposal of educational philosophy. Letter grading.

101B. History of Schools in U.S. (4) Lecture, four hours. Intensive consideration of American society, including its racial and cultural diversity as well as how settler colonial projects define our present conditions. Consideration of historical development of schools in U.S., examining issues of racism, ethnic and gender differences, perspectives of cultural diversity, and impact of colonialism on educational analysis of contexts and structure of public education in California focusing on state, district, and school governance and finance. Letter grading.

101C. History of Higher Education. (5) Formerly numbered C101.) Lecture, three hours; discussion, one hour. Exploration of major eras in history of higher education. Topics include issues concerning access, diversity, parental choice, cultural literacy, teacher empowerment, and more. Letter grading.

M102. Mexican Americans and Schools. (4) (Same as Chicano/a and Central American Studies M102.) Seminar, two hours; discussion, two hours. Theoretical and empirical overview of Chicana/o/Chicano educational issues in the U.S. Analysis of dis-entangling effects of race, gender, class, and immigrant status on Chicana/o/Chicano educational attainment and achievement. Examination of how historical, social, political, and economic factors have dis-entangling effects on Chicana/o/Chicano educational experience. P/NP or letter grading.

M103. Asian American Education and Schooling. (4) (Same as Asian American Studies M114.) Seminar, four hours. Examination of existing body of research from various disciplines on Asian/Pacific American educational experiences. Letter grading.

104A. Introduction to Exceptional Learners. (4) Formerly numbered 134.) Lecture, two hours; discussion, one hour. Survey of characteristics and related educational needs of students (preschool through high school) who vary in mental, physical, psychological, and social characteristics. Focus on disabilities, with exploration in area of gifted/talented education. Emphasis on inclusion, and legal, social, and philosophical issues associated with disabilities and special education with emphasis on role of student special needs in context of general education settings. Letter grading.

105A. Early Childhood Education and Policy. (5) Formerly numbered 133.) Seminar, four hours. Research seminar designed to enable students to gain basic understanding of ways in which public policies are established and implemented, learn about policies' impact on education, and understand the role played by the child and family in U.S. and other countries, and use scientific research in children's cognitive and social development as resources for developing educational programs and policies. Letter grading.

105C. Comparative Educational Policies and Practices. (5) Formerly numbered 109C.) Seminar, four hours. Cross-national survey of educational policies and practices in delivery of education services. Comparative perspective on national context defining institutional differences in policy and practices in delivery and access, types (within tier and sector diversity), and policy systems. Selected topics include achievement of resources for realization of inclusive quality education for all. Early childhood education, foundational education, post-secondary education (including university and non-university systems), and lifelong learning (and adult education) as themes informing educational policies and practices in delivery of education services. Letter grading.

105D. Policy Analysis and Real Politics of Education. (5) Formerly numbered 110.) Lecture, two hours; discussion, two hours. Exploration of relationship between scholarly policy analysis and actual workings of policy systems. Selected topics include achievement standards and assessment, school finance, equal access to education, and school reform. Letter grading.

105E. Organization for Economic Cooperation and Development and Education. (5) Seminar, three hours. Introduction to education policy analysis at international level with focus on Organization for Economic Cooperation and Development (OECD) program of work and outputs related to field of education. Overview of history of OECD and model of governance related to education, criticisms of OECD's power and influence in education, as well as coverage of range of OECD comparative data, comparative studies, and thematic and policy reviews related to education. Letter grading.

106A. Education and Law. (5) Formerly numbered 107A.) Seminar, four hours. Introduction to education policy analysis at international level with focus on Organization for Economic Cooperation and Development (OECD) program of work and outputs related to field of education. Overview of history of OECD and model of governance related to education, comparisons of educational policies in other countries, and policy assessments. Letter grading.
106B. Lesbian, Gay, Bisexual, and Transgender Issues in Education and Law. (4) Formerly numbered 147. Lecture, four hours. Lesbian, gay, bisexual, and transgender issues in education, with emphasis on legal and policy issues that arise in schools, colleges, and universities today and how they are being addressed by legal and education communities. In particular, examination of real-life consequences of current laws and exploration of what might be done to make things better for all persons. Letter grading.

106C. Diversity, Democracy, and Law. (4) Lecture, four hours. Introductory overview of high-profile legal controversies that shape many of the current debates in schools, colleges, and universities today. Focus on access to higher education and equity for marginalized groups. Letter grading.

107A. Race, Class, and Education Inequality in U.S. (5) Formerly numbered 130). Lecture, two hours; discussion, two hours. Focus extensively on understanding educational experiences of four groups in U.S.: African Americans, Asian Americans and Pacific Islanders, Chicanas/Chicanos/Latinas/Latinos, and low-income white Americans. Examination of how historical development of public education in U.S. has influenced educational experiences of these groups. Critical look at current issues and policy debates in education, including debate over school reform, bilingual education, and affirmative action. Letter grading.

107B. Race and Democracy: Access, Equity, and Achievement. (5) Formerly numbered 164.) Seminar, four hours. Social/political perspective on education, with particular attention to race, ethnicity, and inequality. Issues include access, equity, and determinants of educational outcomes. Consideration of relationship of schools to social context and other societal institutions. Examination of how education sets life trajectories in America and effects of race/ethnicity on access to educational opportunities in our society. Letter grading.

M108. Sociology of Education. (5) (Same as Sociology M175.) Lecture, four hours; discussion, one hour. Study of how U.S. educational system both re- motes socioeconomic opportunities and maintains socioeconomic inequalities: historical and theoretical perspectives on role of education in U.S. society; trends in educational attainment; ways in which family background, class, race, and gender affect educational achievement and attainment; stratification between and within schools; effects of education on socioeconomic status, health, attitudes, social participation; educational policies to improve school quality and address socioeconomic inequalities. Letter grading.

M109A. Globalization and Learning. (4) Formerly numbered 102A.) Lecture, two hours; discussion, two hours. Introduction to different conceptualizations of globalization and their relationship to educational processes and learning in contemporary societies. Discussion of several concepts and theoretical lenses as basis for approaching and understanding how dialectics of global and local are affecting educational systems and learning over lifespans. Letter grading.

M109B. Global Citizenship Education. (4) Formerly numbered 152B.) Lecture, four hours. Exploration of issues of global citizenship in education and society as whole by analyzing critical challenges and envi- sioning educational ideals. Historical lenses: philosophical, empirical, and practical implementation of global citizenship education. Examination of how global citizenship education and education for sustainable development are beginning to impact life, actions, policies, and practices of educators, students, non-gov- ernment organizations, governments, multinational organizations, and other key players in local and global governance. Examination of how global citizenship education impacts our worldview, teaching, and learning as we strive to envision and work toward more just and sustainable society. Letter grading.

C111. Politics of Education. (5) Formerly numbered C125.) Lecture, two hours; discussion, two hours. Political dimensions of education institutions as organizations. Relationships between education institutions and political institutions in society. Political theory as foundation for public policy analysis; interest groups in education policy formation and implementation; and focus on Freirean pedagogy. Concurrently scheduled with course C207. P/NP or letter grading.

112. Black Student Activism: History of Resistance on Campuses. (4) Seminar, four hours. Focus on Black student activism. As higher education became more accessible to African Americans, a new wave of activists entered college campuses, with Black Lives Matter movement being one of most recent examples. Examination of philosophical, intellectual, social, political, and psychological elements that have shaped and propelled Black student activism over past two centuries. Exploration of earliest activism activities among Black students, ranging from abolitions of satirical publications to blockade of Black and African studies programs during 1960s and 1970s. In- terrogation of what past teaches about Black student activism today. Study includes discussions, mock debates, case studies, and primary source analyses. Letter grading.

113. Democracy, Justice, and Education. (5) Lec- ture, three hours. Democracy, justice, and education are core ideals that define public discourse and school- arghy. Contemporary political and educational debates from philosophical and practical perspective in con- text of century-old community schools movement. Global pandemic has renewed public interest in community schools as a means to aid impoverished communities to provide integrated social supports such as health, nutrition, and after-school programs. Move- ment also has strong democratic roots tied to local context. Workshop organized around courses that introduce community-based learning—challenging ideas about who has power, how young people learn, and how teachers teach. Inquiry grounded in experience of two UCLA community schools as well as other community schools site chosen by students. Examination of whether and how these schools are sites of social transformation by investigating contexts, theories, and practices that drive change. Letter grading.

117. Road Trip: Exploring College Campus Cultures across U.S. (5) Seminar, four hours. Study of what other college campuses beside UCLA have to offer. Intended for students interested in understanding prominent aspects of non-mainstream U.S. colleges and universities. Exploration of institutional missions of special mission colleges and universities, how these institutions provide services to students, and unique strengths and challenges on these campuses through discussions, mock debates, case studies, and assign- ments that delve deeper into experiences of attending these special mission colleges and universities. Letter grading.

118. Sociology of Community Colleges. (5) Seminar, four hours. Application of existing research, and so- ciological and economic theories to analysis of community colleges. Scholars have employed diverse set of concepts, theoretical frameworks and methods to understand these educational institutions. Examina- tion of this sector of higher education in U.S. through range of qualitative, quantitative, historical, and case studies. Covers economic and sociological founda- tions of research on community colleges and their missions (transfer, remediation/developmental, adult basic education, ESL, community language, workforce development, etc.), institutional dynamics and organizational culture, government and business im- pact, for-profit colleges, social media use among stu- dents and administrators, and support for community-building, and effective reform efforts. Letter grading.

119. Variable Topics in Histories and Philosophies of Education. (4) Seminar, four hours. Variable topics course. Selection of topics related to the teaching of education impacts our worldview, teaching, and learning as we strive to envision and work toward more just and sustainable society. Letter grading.


M121. Introduction to Media Literacies. (5) (Same as Information Studies M121.) Seminar, four hours. Exploration of relationships between media, technology, and popular culture. Students guide to analyze media representations of media as agents of social change and cultural production. Letter grading.

123. Teaching Profession. (5) Seminar, four hours. Examination of relationship between educators teaching practices and public responses to teachers teaching and students learning. Examination of education in so- ciocultural context and discussion of some philo- sophical questions that challenge teaching profession. Letter grading.


126. Language, Literacy, and Academic Develop- ment: Educational Considerations for School-Age Multilingual and English Language Learner Students. (5) Formerly numbered 169.) Seminar, five hours. Use of center-based approach to examine in- structional strategies and assessment practices with preK-12 multilingual and English learner (EL) students who are learning academic content at same time they are acquiring English (and possibly additional lan- guages) in school. Critical comparison of effectiveness of English-only programming with dual-language ap- proaches (e.g., bilingual education, English-focused bilingual education) and roles of summative and formative assessments in educational decision making with mul- tilingual and EL students. Letter grading.

127. Educational Psychology: Center for Teaching and Learning. (5) Lecture, two hours; discussion, two hours. Open for credit to students for credit for course 128. Broad overview of educational psy- chology with emphasis on teaching and learning; various perspectives as to how children learn; issues of teaching and learning that arise based on child’s social class, ethnic background, gender, age, and level of ability. P/NP or letter grading.

128. Educational Psychology: Contexts for Learning and Development. (4) Lecture, four hours. Not open for credit to students with credit for course 127. Overview of theories, methods, and research in educational psychology. Educational psychology involves study of
how students learn and contexts that support this learning. Learning is complex process. Study of research and theory related to different aspects of learning including cognitive, motivation, and regulation. Discussion of ways in which educators can support these processes in students. Letter grading.

M129. Arts Education Undergraduate Practicum: Preparation, Observation, and Practice. (4) Formerly numbered M192A.) Seminar, three hours; laboratory, two hours; discussion, two hours; credit. Requisite: course 180. Research seminar discusses theories and practice in study of human development in educational contexts. Focus on relationship between theories of development, culture, and language. Letter grading.


M131C. Culture, Communications, and Human Development Research Group Seminars (5) Formerly numbered M194C.) (Same as African American Studies M194C.) Seminar, three hours; laboratory, two hours (when scheduled). Requisite: course 180. Research seminar designed to provide opportunity to combine theory and practice in study of human development in educational contexts. Focus on relationship between theories of development, culture, and technologies. Letter grading.


133. Literacy in Society. (5) Formerly numbered 122.) Lecture, four hours. Literacy plays significant role in cognition and language, political governance and law, and economic, social, and cultural life. Explores aspects of literacy and their implications for the teaching and learning of literacy in workplace, healthcare, and community. Consideration of new literacies between the traditional and technology, and impact of illiteracy on income and opportunity. Letter grading.

134. Early Childhood Mathematics Education. (5) Seminar, two hours; fieldwork, two hours. Focus on how research in early childhood education can be used to engage young people in learning mathematics. Study addresses research on how young children learn mathematically, teaching preschool mathematics, and policy context that shapes student opportunities in early childhood education. Particular attention paid to equity issues. Includes fieldwork at local preschool site working with students in mathematics. Letter grading.

M135. Environmental Justice through Lens of Media and Education. (5) Same as Information Studies M135.) Seminar, four hours. Exploration of human relationships with natural world, historically and today. Students take critical perspective of how information has been shaped, audiences positioned, and movements manipulated to promote commercial interests over public good. Exploration of progressive movements that have in past challenged—and currently challenge—neoliberal agendas, exclusive policies, and unsustainable practices. Letter grading.

M136. Working Families and Educational Inequalities in Urban Schools. (4) Formerly numbered M136.) Seminar, three hours; fieldwork, five hours. Exploration of complex relationship between working-class and poor communities and inequalities in American urban school system designed to address frameworks that address issues of race, ethnicity, and immigration, schools viewed as sites where inequalities are produced and resisted. Review of history of exclusionary treatment conceptual frameworks that educational researchers have used to understand notion of inequality, access to quality public education, and how race, ethnicity, and class affect school experiences, diversity of educational communities. Look inside schools through community service learning opportunity to examine systems, structures, and everyday practices that sustain and reproduce inequality and respond to remedial educational inequalities in urban schools. Opportunity to investigate issues of working-class families and inequalities as they relate to students’ own communities and experiences. P/NP or letter grading.

M137. Critical Digital Media Literacies. (4) Formerly numbered 137.) Same as Information Studies M137.) Lecture, four hours. Students question relationships with digital media and information society and explore how media and information technologies are improving society, strengthening democracy, and opening up opportunities for challenging hegemony and promoting social transformation. Problematics of digital media are presented as the tools being used to surveil, capture data, spread hate, mislead, distract, and destabilize democracies. Students analyze media representations of oppressive patterns of normalizing dominant ideologies, and create counter-hegemonic media messages. Combines theoretical foundations of cultural studies and critical pedagogy with practical applications of new digital media and technologies as well as transmedia storytelling and means of communication. Exploration of media representations of race, class, gender, sexual orientation, and other identity markers. Students analyze and create media projects related to education. Letter grading.

138. Cognitive Development and Schooling. (5) Lecture, four hours; discussion, one hour. Overview of theories, methods, and research on children’s cognitive development and implications for this work for educational practice. Covers range of research from different perspectives, drawing from domains such as developmental psychology, cognitive psychology, development and cognitive neuroscience. Students learn about basic cognitive processes. Exploration of ways in which contexts—including those at home, early-care settings, and school—impact children’s development. Letter grading.

139. Culture and Cognition. (4) Lecture, four hours. Introduction to theoretical foundations of research on culture and cognition. Drawing from insights of cultural psychology and anthropology, study of various definitions of community space, etc.; and consideration of social, political, and educational implications of ways these terms are conceptualized. Study addresses questions of relationship between culture and development of mind by this relationship shows that what insight research on culture and cognition offers for the organization of learning environments and for understandings of diversity and equity. Letter grading.

140. Educational Perspectives of Relational Practices in Modern Medicine. (5) Seminar, four hours. Systematic discussion of personhood and body concepts, in context of asymmetric person-to-person relationships in high-tech modern medical training and practice. Exploration of diverse implications for building theories of relational practice. Students learn to use phenomenological approach, to make sense of lived experience of medicine and training in medicine; and stance on who we are and activities at hand in everyday practices. Phenomenological approach maintains focus on how things show up; what affordances of activities and practices mean; and how we comport toward them making sense of them, others, and ourselves. Letter grading.

141. Adolescent Development. (5) Lecture, four hours. Introduction to adolescence—period of tremendous change and growth across all domains of development, including physical, social, cognitive, and emotional during second decade of life. Topics may include pubertal development, adolescent brain development, family, friends, peers, and intimate relationships, social identity and intergroup relations, school, work, and civic engagement. Draws on developmental science research on adolescence and applies that knowledge to examination of problems in adolescence. Contemporary and global conceptualizations of adolescence and more complex understandings of developing self in relation to significant others (i.e., family, peers, social media and questioning of ways in which our world is habit; and stance on who we are and activities at hand in everyday practices. Phenomenological approach maintains focus on how things show up; what affordances of activities and practices mean; and how we comport toward them making sense of them, others, and ourselves. Letter grading.

M142. Introduction to Arts Education for Multiple Publics: Theory and Practice. (4) Formerly numbered M104.) Same as Communication M102.) Seminar, three hours; outside study, nine hours. Introduc- tory course with focus on arts education for multiple publics in inner-city settings. Study of core issues in arts education, creativity, and social justice as you students develop, implement, and assess original syllabi,
149. Variable Topics in Contexts of Teaching and Learning. (4) Seminar, four hours. Variable topics organized around topics that teachers and researchers are interested in. Examination of debates and dilemmas of conducting ethnography research in educational settings. Survey of research methodologies and methods (observation, interviews) in education research. Analysis of how values and beliefs shape quantitative research questions and how research findings get translated when they are reported for popular media audiences. Qualitative background is not required. Letter grading.

151. Quantitative Research in Education: Measurement and Assessment. (5) Lecture, four hours; discussion, two hours. Preparation: course 35, grade of C or better. Intended for students who are interested in better understanding what makes good tests and how to critically interpret and evaluate tests and the evidence of relationships with education outcomes. Overview of basic statistical and measurement theories and methods, issues, and practices of educational measurement and assessment in educational settings. Setting of foundational concepts, methods, issues, and practices of educational measurement and assessment in educational settings. Setting of foundational concepts, methods, issues, and practices of educational measurement and assessment in educational settings.

152. Quantitative Research in Education: Regression Analysis. (5) Lecture, two hours; discussion, two hours. Preparation: course 150 or 151. Preparation: basic familiarity with programming language R. Introduction to regression as tool to answer questions about education. Regression is commonly used to answer questions about education. Relationship between variables — and causal claims — of one variable on another. Using regression appropriately requires thoughtful about what questions of question answering about regression relies on, about limitations of our data, and about how particular variables (e.g., race and gender) are incorporated into analyses in order to avoid repressing society and inequality issues related to fair use of educational measurement and assessment. Letter grading.

165. Educational Program Evaluation. (5) Formerly numbered 180. Seminar, three hours. Preparation: courses 35, 180. Through collaborative work with Hammer Museum, introduction to importance of informal learning contexts, specifically in art museums, and value of conducting educational research within such contexts, while keeping equity at center of inquiry and exploration. Study of art museum pedagogies and learner experiences and responsibility to support positive learning experiences for diverse audiences and local communities. Exploration of Research-Practice Partnerships education research approach that connects university researchers with local communities. Analysis of education partnership between researchers and practitioners. This approach challenges more traditional research-practitioner power dynamics by creating opportunities for both to jointly negotiate research questions, methods, and data analysis. Letter grading.

166. Program Evaluation Theories and Practice. (5) Formerly numbered 139.) Seminar, four hours. Preparation: course 35. Stages and methods for conducting evaluations of educational and social programs, with emphasis on evaluation approaches that are theoretically grounded, methodologically rigorous, practical, and useful. Letter grading.

169. Variable Topics in Inquiry and Design. (4) Seminar, four hours. Preparation: course 35. Variable topics course organized around topics that teachers and researchers are interested in. Examination of debates and dilemmas of conducting ethnography research in educational settings. Survey of research methodologies and methods (observation, interviews) in education research. Analysis of how values and beliefs shape quantitative research questions and how research findings get translated when they are reported for popular media audiences. Qualitative background is not required. Letter grading.

170. Educational Research and Equity in Informal Learning: Collaboration between Hammer Museum and UCLA Education. (5) Seminar, three hours. Requisites: courses 35, 180. Through collaboration with Hammer Museum, introduction to importance of informal learning contexts, specifically in art museums, and value of conducting educational research within such contexts, while keeping equity at center of inquiry and exploration. Study of art museum pedagogies and learner experiences and responsibility to support positive learning experiences for diverse audiences and local communities. Exploration of Research-Practice Partnerships education research approach that connects university researchers with local communities. Analysis of education partnership between researchers and practitioners. This approach challenges more traditional research-practitioner power dynamics by creating opportunities for both to jointly negotiate research questions, methods, and data analysis. Letter grading.
Electives

170. Exploration of Topics in Education. (Formerly numbered 184.) Lecture, one hour. Variable topics course, with emphasis on theories of teaching and learning, connecting them to instructional activities for students in various settings, including libraries and schools. P/NP grading.

171. Community Service Learning for Academic Achievement. (Formerly numbered 185.) Lecture, two hours; discussion, two hours. Emphasis on cognitive learning of theories and significance of connection to service for developing curricular instructional techniques and training that contribute to tutoring, counseling, and other instructional assistance in various school and community settings. Letter grading.

172. Activism through Community Service. (Seminar, four hours. Exploration of impact and importance of activism in addressing health, educational, and social disparities that have led to discrimination, segregation, and marginalization of people of color. Students acquire methodology to combat these issues through participating in activism and community service at UCLA to further address issues that marginalized populations experience. Students apply their experiential knowledge from their respective projects in Community Programs Office Student Association, Student Initiated Outreach Center, Community Service Commission or community setting in preparation to provide critiques and solutions to issues they are combating in their respective projects. Letter grading.

173. Dialog across Difference. (Seminar, three hours. Offers safe and inviting space to engage in open, constructive discourse on issues related to social identities, such as race/ethnicity, socioeconomic class, and sexual orientation identities. Students learn from and with one another’s perspectives, participate in experiential learning exercises, read and discuss relevant materials, and explore their own and other groups’ experiences in various social and institutional contexts. Offers opportunities to appreciate and learn to bridge differences, discover and maximize commonalities, interact with others around controversial issues perceiving and understanding others’ perspectives and working to help create social change. Letter grading.

174A. Experiential Learning in Secondary Classrooms: Health. (Formerly numbered 170C.) Lecture, one hour; fieldwork, four hours. Training and supervised practicum for undergraduate mathematics students interested in teaching in secondary classrooms, including working with 6th- through 12th-grade students in school sites. Focus on health requirements from California Commission on Teacher Credentialing. Experts in field lead discussion of issues related to physical and mental health of students and educators, issues of bullying, and learning theories and practices and projects related to diverse gender identities in classrooms. Active engagement in reflection on issues in which students work. Letter grading.

174B. Experiential Learning in Secondary Classrooms: Law. (Formerly numbered 170D.) Lecture, one hour; fieldwork, four hours. Training and supervised practicum for undergraduate mathematics students interested in teaching in secondary classrooms, including working with 6th- through 12th-grade students in school sites. Focus on law requirements from California Commission on Teacher Credentialing. Experts in field lead discussion of issues related to legal and ethical concerns of schooling, culture of schools, issues of bullying, building of classroom community, and learning theories and practices that engage diverse groups of students in classrooms. Active engagement in reflection on issues in which students work. Letter grading.

174C. Experiential Learning in Secondary Classrooms: Technology. (Formerly numbered 170E.) Lecture, one hour; fieldwork, four hours. Training and supervised practicum for undergraduate mathematics students interested in teaching in secondary classrooms, including working with 7th- through 12th-grade students in school sites. Focus on technology requirements from California Commission on Teacher Credentialing. Experts in field lead discussion of issues related to use of technology in classrooms, and learning theories and practices that engage students with diverse needs and interests. Active engagement in reflection on issues in schools in which students work. Letter grading.

175A. Educational Innovations in Sport and Entertainment in Context of Diversity. (Seminar, four hours. Introduction to central issues at nexus of education, sports, entertainment, and diversity. Examination and discussion of intersection of education, sports leadership, and entertainment that promise greater representation, equity, and inclusion of marginalized groups. Examination of media role in forming perceptions of athletes, its educational force in changing perceptions of athletes, and of college and professional sports. Examination of innovation in education, sports leadership, and entertainment to promote development of these and other related issues through prism of relevant theories, recent research literature, and documentaries. Letter grading.

175B. Educational Leadership and Diversity in Sports: Equity, Access, and Future Prospects. (Seminar, three hours. Examination of how leadership of sport, especially within intercollegiate athletics, impacts higher education, businesses, and other related organizations at national level. Examination of equity across racial, gender, and social-class lines in both collegiate and professional sports. Addresses access in terms of which institutional mechanisms are in place to cultivate culture that empowers student-athletes, women, and people of color to positively manifest in terms of social mobility. Approach to evaluating success of various organizations with diverse leadership and participation in sport focuses on both qualitative and quantitative measures. Letter grading.

175C. Education, Hip-Hop Culture, and Sport. (Lecture, three hours. Exploration of intersection of hip-hop culture, sport, and how hip-hop culture serves as instrument of critical and culturally relevant pedagogy in K-12 education, higher education, and informal learning contexts. Exploration of development of hip-hop music and its cultural art form, from underground movement to dominant, cultural phenomenon; and its appropriation by prominent sports personalities. Exploration of hip-hop’s connection to television, social media, fashion, art, and film. Exploration of how this cultural art form intersects with development of social identities and cultural learnings in traditional and nontraditional educational settings (e.g., public schools, private schools, charter schools, and home schooling); and its enormous educational impact in general. Exploration of potential of hip-hop music and its cultural art form for furthering culturally relevant pedagogy in educational settings. Letter grading.

175D. Education of Contemporary Athletes: Leadership Themes and Principles. (Seminar, three hours. Introduction to educational and business themes surrounding leadership in athletics. Emphasis on requisite experiences, knowledge, skills set, and abilities/characteristics for pursuing career in sport team operations; and how this impacts educational experiences of athletes. Study dissects current (mis)perceptions related to careers as general managers or sports agents, and supplies students with actionable plans for career development and advancement. Students learn about potential educational and career impact of internship and work-study opportunities related to name image, and likeness rights of contemporary college student-athletes, including detailed discussion and analysis of how California bill fits within overall higher education model at universities such as UCLA. Letter grading.

176. Transformative Research in Community-Based Settings: Practicum. (Seminar, four hours; fieldwork, one hour. Required courses: courses 155, 160. Credit toward completion of transformative research in education—public scholarship that aims to disrupt long-standing educational inequities in and about communities. This tradition includes Youth Participatory Action Research (YPAR), Community-Based Action Research (CBAR), and other collaborative approaches that value diverse forms of expertise and knowledge. Through variety of community-engaged learning experiences, students are supported to develop ability to analyze education in social and political context, develop skills for effecting change, demonstrate understanding of multiple perspectives, diversity, pluralism, and social justice. Letter grading.

177. Creating Safe and Welcoming Schools. (Same as Public Affairs M125S.) Lecture, two hours; discussion, one hour. Examination of historical context and causes of school violence, theories, and diverse school climate interventions. Emphasis on impact of school climate on oppressed groups and how social contexts such as poverty and how neighborhood resources influence school safety. Letter grading.

CM178. Critical Media Literacy and Politics of Gender: Theory and Production. (Same as Gender Studies CM178.) Seminar, three hours. Corequisite: course CM178L. Use of range of pedagogical approaches to theory and practice of critical media literacy that necessarily involves understanding of new technologies and media forms. Study of both theory and production techniques to inform student analysis of media and critical media literacy projects. Concurrently scheduled with course CM278L. Letter grading.

CM178L. Critical Media Literacy and Politics of Gender: Laboratory. (Same as Gender Studies CM178L.) Laboratory, two hours. Corequisite: course CM178. Hands-on production experience as integral component of course CM178. Concurrently scheduled with course CM278L. Letter grading.

Required Courses

180. Orientation to Community Engagement. (Seminar, four hours. First course in three-part series to satisfy community engagement requirement for Education and Social Transformation major capstone project. Introduction to conceptions and contexts of community engagement, focusing on possibilities and complexities of critical and asset-based approaches to community engagement. In preparation for students’ community engagement experiences in community organizations, early childhood centers, or schools in Los Angeles, emphasis on reflecting on possibilities, identifying forms of privilege, and understanding relationships between systemic issues and community engagement. Letter grading.

180W. Orientation to Community Engagement. (Seminar, four hours. Requisite: English Composition 3. Limited to Education and Social Transformation majors. Not open for credit to students with credit for course 180. First course in three-part series to satisfy community engagement requirement for Education and Social Transformation major. Students reflect on their coursework, community engagement experiences, and other curricular and co-curricular opportunities while completing major. Students complete portfolio that incorporates work completed through Education and Social Transformation major curriculum as well as form reflection paper where students synthesize their learning. This includes reflection on their personal development, how coursework and engagement experiences contributed to their fulfillment of learning outcomes for major, and plans for future. Students produce compelling final public presentation of portfolio. Letter grading.

187. Variable Topics in Education. (Seminar, five hours; discussion, two hours. Limited to juniors/seniors. Variable topics course organized around discipline-specific knowledge and understandings of educational and learning processes, phenomenon, policies, methods, and instruction. Development of culminating project. Consult Schedule of
Classes for topics and instructors. May be applied as core credit for Education Studies minor students. May be repeated three times for credit. Letter grading.

**188SA. Individual Studies for USIE Facilitators.** (1) Tutorial, to be arranged. Enforced requisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

**188SB. Individual Studies for USIE Facilitators.** (1) Tutorial, to be arranged. Enforced requisite: course 188SA. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to finalize course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

**188SC. Individual Studies for USIE Facilitators.** (2) Tutorial, to be arranged. Enforced requisite: course 188SB. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE 885 course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

**191A-T. Senior Seminar in Education.** (4) Seminar, four hours. Limited to juniors/seniors. Variable topics course organized on selected current issues, basing field observations and readings through weekly seminars. Development of culminating project. Consult Schedule of Classes for topics and instructors. May be repeated for credit. Letter grading.

**C192A. Practicum in Intergroup Dialogue Facilitation.** (4) Seminar, four hours. Requisite: course C160. Limited to juniors/seniors. Fieldwork in regular meetings with the intergroup dialogue facilitator while students are supervised. reopenings of conceptualization, organization, and gathering non-experimental and quasi-experimental and qualitative data. S/U or letter grading.

**199. Directed Research or Senior Project in Education.** (2 to 4) Tutorial, one hour; fieldwork, eight to 10 hours. Enforced corequisite: course 198SA. Directed research in an area of need of that community. May be repeated for credit. Individual contract required. P/NP or letter grading.

**200A. Historical Research and Writing.** (4) Lecture, four hours. Methods of historical research and writing for students who are or who will be engaged in researching and in report or paper or thesis writing, regardless of their field of interest. S/U or letter grading.


**200D. Research Methods: Special Topics.** (4) Lecture, four hours. Requisite: course 200A. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

**200E. Research and Evaluation in Higher Education.** (4) Lecture, four hours. Development of conceptual and practical understanding of research and evaluation in higher education. Topics include basic statistics and design, data analysis, content issues, and research proposal writing. Letter grading.

**201A. Introduction to Education and Social Sciences.** (4) Lecture, four hours. Designed for graduate students. Analysis of various social sciences perspectives and methodologies (including modernization, dependency, Marxist, neo-Marxist, liberation theology, and world-system theories of change and development) and changing notions of role of education in development of less-industrialized countries of world. S/U or letter grading.

**201C. History of American Education.** (4) Same as History M264. Discussion, three hours. History of educational thought and of social forces impinging on American education from 1880s to present. Analysis of relation between these ideas and forces, and aims and practices of American education today. S/U or letter grading.

**202. Evaluation Theory.** (4) Lecture, four hours. Prevalent evaluation theories, systems for categorizing these theories, and process of theory development in educational evaluation. S/U or letter grading.

**204A. Introduction to Education and Social Sciences.** (4) Lecture, four hours. Designed for graduate students. Analysis of various social sciences perspectives and methodologies (including modernization, dependency, Marxist, neo-Marxist, liberation theology, and world-system theories of change and development) and changing notions of role of education in development of less-industrialized countries of world. S/U or letter grading.

**204C. Education and National Development.** (4) Lecture, four hours. Designed for graduate students. Analysis of various social sciences perspectives and methodologies (including modernization, dependency, Marxist, neo-Marxist, liberation theology, and world-system theories of change and development) and changing notions of role of education in development of less-industrialized countries of world. S/U or letter grading.

**205. Minority Education in Cross-Cultural Perspective.** (4) Lecture, four hours. Historical and contemporary analyses of educational policies with regard to ethnic, religious, and linguistic minorities through selected national and international case studies. Intro- duction to cross-cultural education at elementary, secondary, and postsecondary levels. S/U or letter grading.


**209A. History of Higher Education.** (5) Formerly numbered C209A. Research seminar, four hours. Exploration of experiences of immigrant youth in U.S. schools, with focus on language, culture, and educational equity in urban settings. Letter grading.


**211C. Introduction to Factor Analysis and Item Response Theory.** (4) Seminar, three hours. Requisites: course 230B or equivalent, and one course in education measurement (course 200B, 211A, 211B, or equivalent). Introduction to linear factor analysis (FA) and item response theory (IRT) models and their uses in research and assessment. Topics include specification, estimation, evaluation, and interpretation of exploratory and confirmatory models. Students use FA and IRT methods to perform range of basic data analyses. S/U or letter grading.

**212A. Learning and Education.** (4) Lecture, four hours. Models of learning, motivation, reinforcement, motivation, encoding, memory, transfer, individual differences, and instruction. S/U or letter grading.

**212B. Motivation and Affect in Educative Process.** (4) Lecture, four hours. Review of theoretical and empirical literature on children’s development in context of current research and theoretical models; consideration of theoretical and methodological research on family, peer group, and school; application of developmental theory and research to educational practice. S/U or letter grading.

**217A. Social Development and Education.** (4) Seminar, four hours. Biological and familial, school, and other influences on children’s development in context of current research and theoretical models; consideration of theoretical and methodological research on family, peer group, and school; application of developmental theory and research to educational practice. S/U or letter grading.
217B. Cognitive Development and Education. (4) Lecture; two hours; discussion; two hours. Designed for graduate students. Critical review of theories and research on development, with focus on work of Piaget and Vygotsky, and relation of this work to is- sues in educational practice. S/U or letter grading.


217D. Language Development and Education. (4) Lecture; four hours. Research and theory on how chil- dren develop their first language; sociolinguistic and psycholinguistic issues in preschool and primary years; bilingual and dialectical issues. S/U or letter grading.

M217T. Adolescent Development. (4) (Same as Psychology M242T.) Seminar, four hours. Designed for graduate students. Review of recent research on physical, cognitive, social, and psychological develop- ment during second decade of life. Topics include pu- bertal changes, development of parent-child/peer rela- tionships, role of peers, identity development, high- risk behaviors, stress and coping, and school adjust- ment. Letter grading.

219. Laboratory: Advanced Topics in Research Methodology. (4) Laboratory, four hours. Provides as- sistance in design of research and interpretation of data to advanced students from other divisions. Cov- erage of special topics not included in other courses on research methods. S/U or letter grading.

220A. Inquiry into Schooling: Organization and Change. (4) Lecture, four hours. Critical analysis of is- sues in reconstruction of schooling; concepts of func- tion and structure of schooling; organization theory; systems approaches in analysis of organization develop- ment and change. S/U or letter grading.


222A. Introduction to Qualitative Methods and De- sign Issues in Research. (4) Lecture, three hours; discussion, one hour. Introductory course for students interested in epistemology, theories, and styles of qualitative research in educational settings. Theory and practical, qualitative research topics and areas of concern covered in second half of course. Letter grading.

222B. Participant-Observation Field Methods. (4) Lecture, two hours; discussion, two hours. Requisite: course 222A. First of two courses on participant-observer- field study methods. Key skills (e.g., observation, recording, interviewing, role management, data storage) learned through classroom lectures and simu- lations, as well as through actual field-based re- search project. Letter grading.

222C. Qualitative Data Reduction and Analysis. (4) Lecture, two hours; discussion, two hours. Requisite: course 222B. Continuation of fieldwork project started in course 222B, with focus on practical skills and con- ceptual/methodological issues involved in reducing and analyzing qualitative data. Letter grading.

222D. Qualitative Inquiry: Special Topics. (4) Lec- ture, four hours. Special topics course on some field or aspect of qualitative inquiry. Topics may include classroom ethnography, advanced ethnographic writing and/or multimedia design, discourse analysis, and microsociography of social interaction. S/U or letter grading.


224. Leading Change through Evaluation: Methods of Continuous Improvement. (4) Lecture, four hours. Introduction to disciplined inquiry and continuous im- provement methods as means for driving change in complex systems. Introduction to organizational learning and change, and adult learning concepts. Focus on disciplined inquiry as strategy to lead change, whether for individuals, teams, or organiza- tions, and on application in education, health care, and other disciplines. S/U or letter grading.

225A. Issues in Education of Exceptional Individu- als. (4) Lecture, four hours. Designed for graduate stu- dents. Analysis of major research regarding compe- tencies, characteristics, and educational needs of exceptional individuals; consideration of commonalities and differ- ences among exceptional individuals. S/U or letter grading.


229. Seminar: Special Topics in Urban Schooling. (4) Seminar, four hours. Research on selected topics in fields of administration, policy, curriculum, and teaching and learning in urban organizations and school systems. Study of hypothetical situations and research programs on division topics and is- sues. Letter grading.

CM229B. Narratives of Justice: Disrupting School- to-Prison Pipeline—Arts, Activism, and Agency. (4) (Same as African American Studies CM213XP.) Lec- ture, four hours; discussion, one hour. Exploration of policies and practices, art and activism, and other forms of agency engaging school-to-prison pipeline. Continually scheduled with course CM123XP. S/U or letter grading.


M231B. Factor Analysis. (4) (Same as Psychology M231B.) Lecture, four hours; discussion, two hours. 211B, 231A. Exploratory factor analysis, rotations, confirma- tory factor analysis, multiple-group analysis. S/U or letter grading.


231C. Advanced Item Response Theory. (4) (For- merly numbered 211C.) Lecture, four hours. Requi- sites: courses 231A, 231B. Review of standard item response theory models, multidimensional models, multiple group models and models with covariates, item and person parameter estimation, differential item functioning analysis, testing model fit, linking and scale alignment, computerized adaptive testing. S/U or letter grading.

231D. Advanced Quantitative Models in Nonexperi- mental Research: Multilevel Analysis. (4) Lecture, four hours. Requisites: courses 230B, 230C. Examina- tion of conceptual, substantive, and methodological issues in analyzing multilevel data (e.g., on individuals in organizational settings such as schools, corpora- tions, hospitals; communities; consideration of alter- native analytical models). Development of hypoth- eses and research programs on division topics and is- sues. Letter grading.

233. Professional Writing in Education. (4) Lecture, four hours. Intended to assist in professional develop- ment as writers, with focus on style and organization, scholarly genres, modes of discourse, and broader is- sues of conceptualization and method. Letter grading.

234. Critical Perspectives on Economic Approaches to Education. (4) Seminar, four hours. Introduction to concepts and principles in economics of education using critical perspective. Overview of evolving relation- ship between education and economics, including general principles of education and economics and an- alysis of influential works concerning education and school policy, the role and increased role of economic principles in internal func- tioning of educational systems. S/U or letter grading.

235. Comparative Political Economy of Education and Skills. (4) Seminar, four hours. Use of political economy of education perspective for exploring, at in- ternational and comparative levels, link between alter- native models of governing, providing and financing education and training systems and impact of alterna- tives on outcomes such as unequal chances to learn, types of skill formation, and well-being. S/U or letter grading.

237. Law and Urban Education. (4) Lecture, four hours. Examination of recent legal controversies that may im- pact the lives of urban educators to meet needs of stu- dents in multicultural society, with special emphasis on such equity-related issues as desegregation, school finance, standardized testing, and rights of lan- guage minority students. Letter grading.


240. Immigrant Children and Education. (4) Sem- inar, four hours. Examination of immigrant child and youth experience, with primary focus on educational outcomes. Topics include intergenerational experi- ences of immigrant youth, dynamics of immigrant families, cultural, ethnic, and socioeconomic status- related influences in immigrant youths' adjustment, and school-family connections. Letter grading.
241. Conceptual Frameworks for Research in Urban Education. (4) Seminar, four hours. Examination of di-verse set of foundational theories for educational re-searchers concerned with understanding, designing, and studying transformative, culturally sustaining, inter-disciplinary, democratic educational practices. Includes both founding parents and neuro perspectives in emancipa-tory/liberatory, pedagogy, sociocultural/sociohistorical activity theory, critical race theory, cultural modeling, cul-turally sustaining pedagogy and contributions from learning sciences, indigenous, post-colonial, sociolog-ical, postmodern, and anthropological ap-proaches to educational research. Attends both to original ideas and how they have changed over time, as well as how faculty in the Urban Schooling program draw on these frameworks for their research. Letter grading.

242. Learning, Culture, and Schooling. (4) Seminar, four hours. Education typically refers to explicit efforts by experienced members of society to instruct new members in acceptable ways of thinking and acting in that society. Study of how learning sciences—broadly, social sciences interested in study of learning, with particular focus on variants of psychology—attempt to explain human cognitive development, and how people learn to think and act. Investigation of how ac-counts of learning and development can be, and have been, used to inform instruction in school. Focus on school: To understand how to examine theoretical perspectives on learning can inform praxis or educational justice and equity. Letter grading.


244. Theory and Practice of Intergroup Dialogue: Building Facilitation Skills. (4) Seminar, four hours. Topics include social psychology of intergroup rela-tions, intercultural and dialogic communication theo-ries, methods for reconciling and bridging differences in schools and communities, research and evaluation of intergroup dialogues and other educational methods for improving intergroup relations, and core competencies for planning, delivering, and evaluating intergroup dialogues in multicultural settings. While providing foundational grounding in theory and peda-gogy of intergroup dialogue, particular attention to re-lations between group dynamics, structural inequalities, systems of privilege and oppression, and mental health outcomes and disparities among popu-lations. Concurrently scheduled with course C124. Letter grading.

245A. Decision Analysis and Advanced Computer Methods for Educational Policy and Planning. (4) Seminar, four hours. How information technology and decision analysis impact K-12 schooling, higher edu-cation, and technical training/workplace settings. With research paper, oral presentation, and two research briefs, students can pursue decision analysis areas of special interest to their professional and career objec-tives. S/U or letter grading.

246. Seminar: Special Topics in Child Development and Education. (4) Seminar, four hours. Content varies; limits of investigation set by individual in-structor. S/U or letter grading.

249. Theories and Methods in Developmental Scien-ces. (4) Lecture, three hours. Broad overview of the-ories and methods used to study development of chil-dren in context. Introduction to foundational theories in field of developmental science, and exposure to range of methodological approaches—ranging from sources of data to analytic approaches—that re-searchers use to characterize developmental change. S/U or letter grading.

250A. Fundamentals of U.S. Higher Education Sys-tem. (4) Lecture, four hours. Designed for graduate students. Two-course sequence designed to orient new students to issues, ideas, and literature that con-stitute this division, with emphasis on underlying so-cial and political issues that shape higher education and organizational change. Letter grading.

250B. Organizational Analysis of Higher Education. (4) Lecture, four hours. Designed for graduate stu-dents. Two-course sequence designed to orient new students to issues, ideas, and literature that constitute this division, with emphasis on underlying social and political issues that shape higher education and orga-nizational change. Letter grading.

250C. Theoretical Frameworks of Higher Education. (4) Lecture, four hours. Designed for graduate stu-dents. Overview of various social sciences theories used to analyze educational issues and issues of contempo-rary higher education. Explanation of how theory and methodology affect research design and framing of re-search questions in studies of higher education. Letter grading.

252B. Educational Enterprise. (4) Lecture, two hours; discussion, two hours. Required: course 252A. Lim-ited to Educational Leadership Program students. Use of structural, human resource, political, and symbolic frames to study K-16 education, with focus on educa-tional environments, organizations, and curriculum and instruction. Letter grading.

M253A. Seminar: Current Problems in Comparative Education. (4) Seminar, four hours. Examination of some of most in-fluential critical theorists, including Marx, Nietzsche, Freud, Marcuse, Foucault, Fanon, and de Beauvoir and their contributions to critique of contemporary ed-ucation, society, and politics. S/U or letter grading.

253B. Seminar: African Education. (4) Seminar, four hours. Designed for graduate students. Contemporary issues in African educational systems, including ques-tions of access and equity, quality and efficiency, rele-vance and responsiveness, links between schools and communities, and policy and practice in education. S/U or letter grading.


253D. Seminar: Latin American Education. (4) Seminar, four hours. S/U or letter grading.

253G. Seminar: Asian Americans and Education. (4) Seminar, four hours. Basic issues and topics related to Asian Americans in field of education. Examples of is-ues and topics include Asian Americans and commun-ity, socioeconomic status, education-to-work transi-tion, language and culture question. S/U or letter grading.

253H. Seminar: Chicanos/Hispanics and Education. (4) Seminar, four hours. Basic issues and topics re-lated to Chicano and other Hispanic groups in edu-cation. Review of literature on specific educational levels and Chicano groups, for example, early childhood, elementary, higher education; specific topics: assessment, access, tracking, segregation; im-plications for schooling. S/U or letter grading.

253I. Education and Social Change in Middle East and Islamic World. (4) Seminar, four hours. Critical and analytic examination of historical and current role of traditional and modern (Western) education in af-fecting social, political, and economic changes in countries of Middle East and Islamic world (including and Pacific Rim, South and Central Asia). S/U or letter grading.


254A-255B-255C. Seminars: Special Topics. (4-4-4) Seminar, four hours; discussion, four hours. Designed for graduate students. Study of current developments in historiography of education and critical reading of texts in history of education. S/U or letter grading.

255A. Measurement; 255B. Design; 255C. Data Analysis.


256B. Seminar: Special Topics in Research. (4) Seminar, four hours. S/U or letter grading.

256C. Seminar: Special Topics in Higher Education. (4) Seminar, four hours. Introduc-tion to theory and practice of internationalization in U.S. higher education, looking at meaning of concept of comprehensive internationalization across campus, issues of effective leadership and management, and individual aspects of internationalization, including study abroad program development and implementa-tion; global education, service-learning, and support services, international curriculum—area and language studies, English as a second language programs, in-ternational internships and careers, faculty develop-ment for international teaching, international trans-national partnerships/branch campuses, international develop-ment and grant projects, international alumni, distance learning/degree delivery, online courses (MOOCs)/hy-brid models. Letter grading.

M260A. Introduction to Programming and Data Management. (Formerly numbered 260A) (Same as Public Policy M276A) Lecture, three hours. Fundamen-tal skills of data management. Development of strong foundation in R programming language. R is most popular language for statistical analysis and one of most popular languages for data science applica-tions (e.g., web-scraping, interactive maps, network analysis). Students become proficient in data manage-ment and R programming through weekly problem sets, completed in groups. No prior experience with R required. S/U or letter grading.

M260B. Fundamentals of Programming. (Formerly numbered 260B) (Same as Public Policy M276B) Lecture, three hours. Recommended requisite: course M260A. Second course in programming/data science sequence. Recommended for students who have pro-gramming background. Uses primarily R programming language. Organized around practical programming skills/concepts that are fundamental across modern object-oriented programming languages (e.g., Python, Javascript). Topics include organizing files, folders, and scripts; reading (importing) and writing (exporting) data; using Git and Github for version control and col-laboration; iteration (e.g., loops); conditional execu-tion; writing functions; strings and regular expressions. These general programming skills are prerequisite for flashier data science applications (e.g., web-scraping, interactive maps). Students will come proficient in pro-gramming skills/concepts through weekly problem sets, completed in groups. S/U or letter grading.

251E. Higher Education Seminar: Diversity Issues and Research Perspectives. (4) Seminar, four hours. Examination of how racial diversity and its related dy-namics have transformed and at same time been re-shaped by institutions of higher education, with focus specifically on student experiences, curricula, institu-tional climate, educational policies, and administrative practices. Letter grading.

251F. Seminar: Cognitive and Personal Develop-ment of College Students. (4) Seminar, four hours. Examination of topics of cognitive development of college stu-dents; issues of personal and social development, in-cluding leadership, and interpersonal relations and skills. S/U or letter grading.

252B. Seminar: Reading. (4) Seminar, four hours. S/U or letter grading.

256. Seminar: Higher Education. (4) Seminar, four hours. May be repeated for credit. S/U or letter grading.

254. Seminar: Teacher Education. (4) Seminar, four hours. Research, issues, and practices in preserves and in-service teacher preparation, evaluation, and certification. Social, philosophical, and methodolog-ical issues and current trends in America and abroad. Opportunities to observe, participate in, and discuss teacher education programs. S/U or letter grading.

256. Higher Education Policy. (4) Lecture, four hours. Required: courses 250A, 250B. Understanding public policy for higher education requires under-standing of both issues and policy process. Review of major topics on which U.S. government is active, as well as key actors and their influence. Letter grading.

M266. Feminist Theory and Social Sciences Re-search. (4) (Same as Gender Studies M266) Lecture, four hours. Examination of how diverse feminist theories addressed in last quarter have challenged and strengthened conventional social sciences theo-ries and their methodologies. Introduction especially to feminist standpoint theory, distinctive critical theory methodology now widely used in social sciences. Letter grading.
270. Introduction to Cultural Studies. (4) Lecture, four hours. Investigation of current trends in cultural studies through examination of different methods of cultural interpretation, seminal texts in cultural studies, and practical criticism engaging popular artifacts of media culture. Emphasis on developing critical media literacy as goal of cultural studies. Letter grading.

272. Case-Study Research in Education Policy and Practice. (2) Lecture, three hours. Case-study methods in education research, providing opportunities for applying methodological skills to actual case-study research projects. Focus on single and multiple case studies that investigate issues in education policy and practice. Letter grading.

274. Science, Technology, and Social Research after Eurocentrism. (4) Lecture, four hours. Philosophy of natural sciences for social scientists that examines critical media literacy, cultural studies, and human development. In particular, examination of history of writing research over last three decades as part of broader intellectual history. Letter grading.

CM278. Critical Media Literacy and Politics of Gender: Theory and Production. (4) Same as Gender Studies CM278.) Seminar, three hours. Corequisite: course CM278L. Use of range of pedagogical approaches to theory and practice of cultural media literacy that necessarily involves understanding of new technologies and media forms. Study of both theory and production techniques to inform student analysis of media and critical media literacy projects. Concurrently scheduled with course CM178. Letter grading.

CM278L. Critical Media Literacy and Politics of Gender: Laboratory. (Q) Same as Gender Studies CM278L.) Laboratory, two hours. Corequisite: course CM278. Hands-on production experience as integral component of course CM278. Concurrently scheduled with course CM178L. Letter grading.

280A. Seminar: Selected Topics in Special Education. (2 to 6) Seminar, two to six hours. Focus on research and clinical problems in special education. Introduction to range of clinical services and research strategies. Exploration of current topics in field. S/U or letter grading.

281. College Access Seminar. (4) Seminar, two hours; discussion, two hours. Knowledge of changing dynamics of college access at individual, organizational, and field level by linking of links between K-12 and postsecondary stratification and how educational advantage and disadvantage accumulates throughout education and affects equity in college access. Letter grading.

284. Critical Theory in Education: Power, Politics, and Liberation. (4) Lecture, four hours. Designed for graduate students. Introduction to major themes, issues, and methodologies within what has come to be known as cultural studies tradition. Includes some major theoretical writings in liberal, neo-Marxist, left liberal/postmodernist, and Marxist subfields of critical education tradition. Letter grading.

285. Educational Law. (3) Lecture, four hours. Examination of recent high-profile, education-related disputes at both K-12 and higher education levels. Exploration of topics including campus safety and privacy, student rights, torts, educational technology issues and concerns, religion in schools, cyberbullying, and accountability for off-campus behavior. Examination of access to quality education by analyzing disputes arising at every stage of educational process from issues of school discipline and school-to-prison pipeline to ongoing legal battles regarding race-conscious policies. Coburger, J., 1991: The Law of Education and the Charismatic School, and multiple case studies, rights, and freedoms of undocumented students. Concurrently taught with Law 282. Letter grading.

296. Language, Culture, and Education. (4) (Same as Anthropology M256.) Seminar, three hours. Examination of ongoing movement to reclaim and reimagine schooling as site to sustain indigenous, Black, Latinx, Asian and Pacific Islander communities, including ways these identities/memberships intersect with gender identity and expression, sexuality, dis/ability, language, migration, place, class, and more. For centuries of teaching and learning, communities have sought to push against ways nation-state schools have devalued communities, their lifeways, and their lives. Most recently, this movement is indebted to several decades of research, theory, and practice in asset or strength-based pedagogy tradition. Work on culturally sustaining pedagogy (CSP) has joined these decades and centuries of work to offer vision of school that seeks to perpetuate and foster—to sustain—in- guistic, literate, and cultural pluralism as part of schooling for positive social transformation and revitalization. S/U or letter grading.

287. Research on Language Issues in Education. (4) Seminar, four hours. Corequisite: course CM278L. Use of range of pedagogical approaches to theory and practice of cultural media literacy that necessarily involves understanding of new technologies and media forms. Study of both theory and production techniques to inform student analysis of media and critical media literacy projects. Concurrently scheduled with course CM178. Letter grading.

288. Research Apprenticeship Course. (2) Discussion, two hours. Course facilitates mentorship model of training PhD students in educational research. Exploration of current research and literature in research specialty and development of graduate student research topics. Assignment of common readings related to these topics; students have opportunity to offer and receive feedback. May be repeated for credit. S/U grading.

292A. Practicum in Intergroup Dialogue Facilitation. (4) Seminar, three hours. Corequisite: course CM244. Application and further development of content and skills learned in course CM244. In addition to co-facilitating weekly dialogues, expected to participate in weekly teaching apprentice practicum seminars. Readings, discussions of group dynamics, and one-on-one meetings with assigned coach. Fosters support for learning the techniques and skills for personal growth. S/U or letter grading.

295. Freire. (4) Seminar, four hours. Corequisites: courses C125 or C207 or prior knowledge of Freire’s work. Study of Freire’s work, with focus on his methodology of Educational Management. (2) Seminar, two hours. Focus on research and analysis of current topics in education. Discussion of current research and literature in research specialty and applicability to school organizations. Letter grading.

296. Research Topics in Education: Legal Aspects of Educational Management. (2) Lecture, two hours. Examination and analysis of legal issues, especially as they apply to school organizations. Letter grading.

296R. Research Topics in Education: Organizational Theory. (2) Lecture, two hours. Examination and analysis of organizational theories, especially as they apply to school organizations. Letter grading.


296J. Introduction to Survey Research Methods. (2) Seminar, two hours. Introduction to conceptual and methodological issues involved in survey-based research in education, offering structured opportunity to practice various practical aspects of survey (instruments and procedures, data collection, data management, data analysis, and report writing). S/U grading.

296K. Research Design. (2) Seminar, two hours. Effective educational leaders require ability to accurately diagnose educational problems before jumping to proposed solutions. Study designs must include systematic ways to collect and analyze data, as well as minimize potential threats to validity of data and analysis. Designed to equip students with tools needed to design research studies that address specific real-world educational problems. Emphasis placed on developing research designs as strategies for investigating educational problems, such as types of questions that can be answered appropriately with qualitative and mixed methods studies, design components, planning for fieldwork and data collection, sampling, ethics, and credibility. Letter grading.

299A-299B. Research Practicum: Education. (4-4-4) Clinical, to be arranged. May be repeated for credit. S/U grading.

301. Introduction to Information and Presentation Tools. (2) Laboratory, two hours. Limited to credential program students. Sequence of laboratory sessions providing service teaching skills and knowledge to education technology infrastructure and classroom presentation tools, introduction to resources and services, e-mail functions and Internet, and presentation software and multimedia creation. Letter grading.

305. Health Education for Teachers. (2) Lecture, two hours. Limited to Teacher Education Program students. Teaching/learning process as applied to personal and community health. Topics include psychoactive drugs (alcohol, tobacco, and narcotics), human sexuality, nutrition, community health resources, and analysis of state’s health framework. S/U grading.

309. Methodologies for English Language Learners. (2) Laboratory, two hours. Limited to credential program students. Pedagogy for bilingual and English language learners. Discussion of competencies needed by all content area teachers of English language, including strategies for teaching in and through English. Topics include educational issues, organizational approaches, and communicative approach; strategies and activities. Letter grading.

315. Principles and Methods for Teaching Reading and Writing. (2) Lecture, two hours. Reading instruction in elementary schools. Analysis of reading programs and problems; study of relationships between language/culture/cognition and reading; examination of multiple methodological approaches to teaching reading; and examination of multiple methodological approaches to teaching reading. S/U grading.

316A. Seminars: Research Topics in Education. (2) Seminar, three hours. Advanced study and analysis of current topics in education. Discussion of current research and literature in research specialty and applicability to school organizations. Letter grading.

316B. Research Topics in Education: Legal Aspects of Educational Management. (2) Lecture, two hours. Examination and analysis of legal issues, especially as they apply to school organizations. Letter grading.

316C. Research Topics in Education: Organizational Theory. (2) Lecture, two hours. Examination and analysis of organizational theories, especially as they apply to school organizations. Letter grading.


316J. Introduction to Survey Research Methods. (2) Seminar, two hours. Introduction to conceptual and methodological issues involved in survey-based research in education, offering structured opportunity to practice various practical aspects of survey (instruments and procedures, data collection, data management, data analysis, and report writing). S/U grading.

316K. Research Design. (2) Seminar, two hours. Effective educational leaders require ability to accurately diagnose educational problems before jumping to proposed solutions. Study designs must include systematic ways to collect and analyze data, as well as minimize potential threats to validity of data and analysis. Designed to equip students with tools needed to design research studies that address specific real-world educational problems. Emphasis placed on developing research designs as strategies for investigating educational problems, such as types of questions that can be answered appropriately with qualitative and mixed methods studies, design components, planning for fieldwork and data collection, sampling, ethics, and credibility. Letter grading.

319A-299B-299C. Research Practicum: Education. (4-4-4) Clinical, to be arranged. May be repeated for credit. S/U grading.

319. Research Practicum: Education. (4-4-4) Clinical, to be arranged. May be repeated for credit. S/U grading.

319. Research Practicum: Education. (4-4-4) Clinical, to be arranged. May be repeated for credit. S/U grading.

320. Introduction to Information and Presentation Tools. (2) Laboratory, two hours. Limited to credential program students. Sequence of laboratory sessions providing service teaching skills and knowledge to education technology infrastructure and classroom presentation tools, introduction to resources and services, e-mail functions and Internet, and presentation software and multimedia creation. Letter grading.

325. Health Education for Teachers. (2) Lecture, two hours. Limited to Teacher Education Program students. Teaching/learning process as applied to personal and community health. Topics include psychoactive drugs (alcohol, tobacco, and narcotics), human sexuality, nutrition, community health resources, and analysis of state’s health framework. S/U grading.

329. Methodologies for English Language Learners. (2) Laboratory, two hours. Limited to credential program students. Pedagogy for bilingual and English language learners. Discussion of competencies needed by all content area teachers of English language, including strategies for teaching in and through English. Topics include educational issues, organizational approaches, and communicative approach; strategies and activities. Letter grading.

335. Principles and Methods for Teaching Reading and Writing. (2) Lecture, two hours. Reading instruction in elementary schools. Analysis of reading programs and problems; study of relationships between language/culture/cognition and reading; examination of multiple methodological approaches to teaching reading; and examination of multiple methodological approaches to teaching reading. S/U grading.
315B. Elementary Literacy Methods. (3) Seminar, three hours. Theoretical principles and pedagogical strategies necessary for developing and maintaining balanced literacy programs for elementary students. Examination of how children learn to read, write, and use language. Letter grading.

318A. Integrated Methods for Elementary Teachers. (3) Lecture, three hours. Examination and development of instructional programs and analyses and practices of instructional methods for teaching K-6 content, with emphasis on interdisciplinary approach that integrates content areas and infuses literacy, technology, and strategies for second language learners. Aligned with California state frameworks and California content standards for grades K-12 that address needs and interests of diverse students. Letter grading.

318B. Integrated Methods for Elementary Teachers. (4) Lecture, four hours. Examination and development of instructional programs and analyses and practices of instructional methods for teaching K-6 content, with emphasis on interdisciplinary approach that integrates content areas and infuses literacy, technology, and strategies for second language learners. Aligned with California state frameworks and California content standards. Letter grading.


320A-320B-320C. Secondary Content and Literacy Methods. (4–3–3) Lecture, three hours. Examination and development of instructional programs and analyses and practices of instructional methods for teaching content in grades 7–12. Emphasis on interdisciplinary approach that integrates content areas and infuses literacy, technology, and strategies for second language learners. Methods courses align with California state frameworks and California content standards for grades K-12, including English Language Development Standards—all of which address needs and interests of diverse students. Letter grading.

321A. Secondary Content and Literacy Methods in Ethnic Studies. (3) Lecture, three hours. Examination and development of instructional programs, analyses, and pedagogical practices for teaching ethnic studies in grades 7 through 12, with emphasis on interdisciplinary approach that integrates content areas and infuses literacy, technology, and strategies for second language learners. Methods courses align with California state frameworks and California content standards for grades K-12, including English Language Development Standards—all of which address needs and interests of diverse students. Letter grading.

321B. Ethnic Studies Curriculum Development. (3) Lecture, three hours. Examination and development of theoretical issues and sound curriculum development for ethnic studies in grades 7 through 12, with emphasis on interdisciplinary approach that integrates content areas and infuses literacy, technology, and strategies for second language learners. Methods courses align with California state frameworks and California content standards for grades K-12, including English Language Development Standards—all of which address needs and interests of diverse students. Ethnic studies curriculum focuses on Chicano studies, African American/Black studies, indigenous studies, Asian American studies, gender/sexuality studies, and how to develop curriculum focused on local histories in Los Angeles urban classrooms. S/U grading.


330A. Observation and Participation. (2 to 6) Site-based fieldwork, 10 to 15 hours. Students are assigned to student teach in designated school sites with racially, culturally, and linguistically diverse student populations. Throughout student teaching period, students as novice teachers plan, implement, and assess daily lessons and units, as well as actively engage in reflecting on issues specific to school/community relations. Increased daily responsibilities. S/U grading.

330B. Student Teaching. (4 to 8) Site-based fieldwork, 10 to 20 hours. Requisite: course 330A. Students are assigned to student teach in designated school sites with racially, culturally, and linguistically diverse student populations. Throughout student teaching period, students as novice teachers plan, implement, and assess daily lessons and units, as well as actively engage in reflecting on issues specific to school/community relations. Increased daily responsibilities. S/U grading.

330D. Classroom Residency and Teaching. (4) Site-based fieldwork, 10 to 30 hours. Students are employed by local school districts to teach in designated school sites with racially, culturally, and linguistically diverse student populations. Students also work in collaborative teams through Teacher Education Program to initiate change project in their local school and/or complete case study on project. S/U grading.

360A-360B-360C. Novice Seminars. (2–2–2) Seminar, two hours. Analysis of basic principles and concepts of planning, conducting, and evaluating units of instruction with emphasis on constructivist strategies and their application in elementary and secondary schools. Examination of different methods of computer literacy and teaching with an emphasis on conducting ethnographic inquiry of local community of their designated partnership district. May be repeated for credit. S/U grading.

401. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

409A-409B-409C. Colloquium Series: Human Development and Psychology. (1–1–1) Seminar, one hour. Requisite: consent of instructor. Open to all students majoring in education and Psychology (HPY) PhD students. Training to conduct research that has practical implications as well as theoretical significance within field of applied human development. Children’s cognitive, language, personality, and social development in educationally relevant settings such as schools and day care programs. Series units scholars exploring contemporary issues in social development and provide framework to facilitate research and training in human development within school and UCLA community, as well as forum to share information with other graduate institutions. May be repeated for credit. S/U grading.


403. Infant-Toddler Child Development and Care. (4) Lecture, four hours. Development of infant and toddler development (ages 0 to 3) and implications of development on their care and education. Introduction to major theories in child development, developmental milestones, and recent research. Topics include family engagement, inclusion, risk contexts, developmentally appropriate practices, and assessment. S/U or letter grading.

405A. Teaching in Urban Schools: Exploring Communities. (2) Seminar, two hours. Limited to credential program students. Learning about urban communities by critically examining students’ own beliefs, assumptions, and experiences about them to deepen understanding and appreciation about urban communities. Letter grading.

405B. Teaching in Urban Schools: Exploring Identities. (2) Seminar, two hours. Limited to credential program students. Examination and reflection on student values, beliefs, assumptions, and lives to determine how these factors shape way students view their world and, in particular, teaching, learning, students, their families, and their neighborhoods and communities. Letter grading.

405C. Teaching in Urban Schools: Exploring Family-School Connections. (2) Seminar, two hours. Limited to credential program students. Exploration of interrelationships among families, communities, and school systems, engaging parents, caregivers, guardians, students, and school personnel to develop strategies for working with families and to develop philosophy of education. Letter grading.

406. Social Foundations and Cultural Diversity in American Education. (3) Lecture, three hours. Intensive consideration of American society, particularly its cultural and racial diversity. Topics include historical dimensions of American society; relations of different cultures, and ways to learn about students’ cultures. Examination of issues of racism, ethnic and gender differences, perspectives of cultural diversity, and impact of educational and classroom instruction. Letter grading.

406B. Social Foundations and Cultural Diversity in American Education: Ethnic Studies Emphasis. (3) Lecture, three hours. Historical, social, political, and education contexts of American society. Special emphasis on perspectives and contributions from ethnic studies. Examination of central arguments centered around systemic processes, deficit-making, marginalization, and ways to promote social justice, agency and activism. Letter grading.


409. Language Structure, Acquisition, and Development. (3) Lecture, three hours. Theoretical foundations of language structure and first and second language acquisition, with focus on major themes of current research in the field of child language acquisition and development. History and current theories and models of English language learners. Rationale for bilingual/English language acquisition and development programs. Historical and current theories and models of language. Letter grading.


411. Procedural Issues in Evaluation. (4) Lecture, four hours. Assessment methodologies appropriate for evaluation problems. Writing evaluation proposals, focused program evaluation, and developing program evaluation monitoring procedures, selecting appropriate evaluation design strategies, coping with ethical considerations in evaluation, framing decision context, and reporting evaluation results. Letter grading.

412. Why Research Matters to Student Affairs Practice. (3 or 4) Lecture, three hours. How do researchers impact college on students? How can research be used to improve student affairs practice? Introduction to world of college impact research and orientation to major ongoing studies conducted at...
UCLA and beyond. Students interact with researchers and provide input on how research results might be utilized to improve work of student affairs. Letter grading.

413A. Language and Culture. (2 to 4) Lecture, two hours. Limited to credential program students. Offered and required for Bilingual Authorization Programs. Focus on language of emphasis for bilingual teachers. Practice in listening, reading, speaking, and writing competencies required for bilingual classrooms. Assessment made at end of course to determine proficiency of Bilingual Authorization Program candidates. Letter grading.

413B. Methodology for Primary Language Instruction. (2 to 4) Lecture, three hours. Offered and required for Bilingual Authorization Programs. Consideration of models for developing cultural and language skills of home speakers of language of emphasis; practice in use of activities to develop student ability to use language for real-world and academic purposes in culturally appropriate ways. Consideration of models for teaching academic content in primary language for delivery of core curriculum to bilingual students. Letter grading.

413C. Culture of Emphasis. (2 to 4) Lecture, three hours. Offered and required for Bilingual Authorization Programs. Description of language of emphasis in its home country or countries; major historical periods and events; values, belief systems, and expectations; migration and immigration; historical and contemporary demography. Letter grading.

414A. Student Affairs Practice and Theory. (3) Lecture, two hours; discussion, two hours. Examination of needs for student affairs services, range of services, their philosophical and empirical rationale, and their organization and evaluation to provide knowledge base for developing theories of practice. Ongoing involvement in cooperative learning project to examine these issues both as team members and as individuals. Offered in summer only. Letter grading.

414C. College Student Counseling. (3) Lecture, three hours. Overview of counseling at college counseling centers. Review of historical context, philosophical and practical bases, organization and administration, specific programs, and contemporary issues and trends in college student counseling. Letter grading.

414E. Administration of Student Affairs. (3) Lecture, two hours; discussion, two hours. Overview of general knowledge and processes essential to effectively administer programs or services under student affairs. Examination of interactions between environmental factors and strategies for governing, planning, and managing student affairs programs and services. Offered in summer only. Letter grading.

416. Program Development and Planning in Student Affairs. (4) Discussion, two hours. Planning of programs that provide or support learning for individuals and groups in student affairs context. Examination of philosophical foundations of program planning, along with pedagogical and logistical dimensions of program development. Letter grading.

419. Introduction to Research in Student Affairs. (4) Lecture, two hours; discussion, two hours. Designed to orient students to nature of educational research in context of student affairs. Overview of quantitative, qualitative, and mixed methods to position students as scholar-practitioners. Exposure to these methods supplemented by examination of how they are used in published research relevant to practice of student affairs. Letter grading.


426A-426B. Program Development and Program Evaluation in Student Affairs. (2–2) Lecture, two hours. Introduction to program development and planning, as well as to assessment of program effectiveness. Development of knowledge of and skills in planning educational and training programs that provide support for learning within context of student affairs, as well as knowledge of and skill in developing, implementing, and assessing effectiveness of one program. In Progress (426A) and letter (426B) grading.

440C. Administration of Instructional Programs. (4) Lecture, four hours. Examination of current educational problems in society and strategies of their solution through curriculum policy and practice; instructional design and operation; in-service training of teaching staffs. S/U or letter grading.

441A. Instructional Supervision A. (4) Lecture, four hours. Analysis of teaching in light of research-substantiated elements of instruction: task analysis, appropriate objectives, principles that increase motivation, rate and quality of instruction, transfer, monitoring and adjusting instruction to meet needs and capacities of learners. S/U or letter grading.

442B. Legal Aspects of Educational Management and Practice. (4) Lecture, four hours. Examination of legal consequences for educational programs in U.S.; constitutional dimensions of church/state relations; employees’ civil rights and legal aspects of hiring, firing, and negotiating procedures; student attendance, control, and civil rights. S/U or letter grading.

443. Policy Analysis in Education. (4) Lecture, four hours. Overview of political, economic, and legal context of educational policy formation. Included in examination are issues that impact on minorities (e.g., bilingual education, desegregation, affirmative action, role of subordinates in policy-making process). S/U or letter grading.

448A. Urban School Leadership. (4) Lecture, four hours. Analysis of problems of urban school leadership. Emphasis on changing nature of urban principalship, with considerable attention to role of other school and community agencies that interact with urban school leaders. S/U or letter grading.

448B. Urban Leadership Laboratory. (4) Laboratory, four hours. Analysis of and opportunity to practice human and technical skills requisite for success as urban school leader. Topics include: motivation, conflict resolution, applied computer technology, and effective communication. Activities include gaming, simulation, computer programming, and group dynamics. S/U or letter grading.

450. Leadership Capacity Building. (4) Lecture, one hour; discussion, three hours. Limited to Educational Leadership Program students. Course taken in year three of Educational Leadership Program to help students with their communication and leadership capacities. S/U grading.

451. Foundations of Organizations and Leadership. (4) Lecture, four hours. Limited to Educational Leadership Program students. Understanding of traditional and contemporary conceptions of leadership and organizational theory, with application of these conceptions to student professional work settings. Letter grading.

452A–452B. Educational Enterprise. (4–4) Lecture, two hours; discussion, two hours. Limited to Educational Leadership Program students. Use of structural, human resource, political, and symbolic frames to study educational enterprises. Focus on purposes of education governance, finance, access, and equity. 452B. Requisite: course 452A. Focus on educational environments, organizations, and curriculum and instruction.

454A. Action Research: Collaboration in Change. (4) Lecture, one hour; discussion, two hours; small group work, one hour. Limited to Educational Leadership Program students. Students carry out full cycle of action research at educational site. Projects done in teams as students hone and assess their collaboration abilities. Exploration of qualitative and quantitative data gathering methods and analyses. Letter grading.

45B8. Action Research: Collaboration in Change. (4) Lecture, one hour; discussion, one hour; limited to small group work, one hour. Limited to Educational Leadership Program students. Second course in two-course sequence on learning how to do and use action research to improve learning and teaching roles while collaborating on data collection and analysis at educational site. Letter grading.

455. Writing and Inquiry. (4) Lecture/workshop, eight hours per month; discussion, one hour; laboratory, one hour; limited to doctoral candidates in Educational Leadership Program. Intended to assist students’ professional development as writers, addressing style and organization, scholarly genres, modes of discourse, and broad issues of conceptualization and method. Letter grading.

456. Altering Structure and Culture of Schooling. (4) Lecture, four hours; discussion, four hours. Limited to Educational Leadership Program students. Using applied orientation, examination of variety of approaches to organizational change and ways to sustain change. Letter grading.


460. Seminar: Special Issues in Evaluation. (2 or 4) Seminar, one or two hours; discussion, one or two hours. Topics and instructors vary each term. Recent emphases included evaluation utilization and cost-effectiveness evaluation. S/U or letter grading.

466. Critical Media Literacy: Teaching Youth to Critically Read and Create Media. (4) Lecture, four hours. Preparation for educators to teach K-12 students to explore their relationships with media by critically examining media representation and using their own alternative media messages. Critical media literacy combines theoretical foundations of cultural studies and critical pedagogy with practical classroom applications of new digital media as well as traditional print-based means of communication. Exploration of media representations of race, class, gender, sexual orientation, and other identity markers. Educators critically question media and technology, as well as explore new alternatives for creating multimedia messages in their own classrooms. Analysis and creation of media projects related to teaching required. Letter grading.

470A. Seminar: Large Systems and Individual Schools. (4) Seminar, four hours. S/U or letter grading.

471. Principles of Effective Coaching and Leadership. (4) Seminar, four hours. Introduction to principles of effective coaching and teaching for aspiring coaches considering careers in professional and collegiate athletics, K-12 schools, and community- based sports organizations. Premised on principles of social justice and on value and promise of equity, inclusion, and diversity for contributing to creation of more humane, equitable, and harmonious society and nation. Letter grading.

472. Introduction to Philosophies of Coaching. (4) Seminar, four hours. Introduction to philosophies of coaching—overarching frameworks, perspectives, deep beliefs, and values that drive coaches’ specific practices—as they are manifested in writings and conduct of professional and college sport coaches. Exploration of these through study of successful coaches in variety of sports unpacking their fundamental keys of success. Reflection on and cultivation of own personal and intentional philosophy of coaching answering questions what is your why and what is your how. Exploration of questions such as what is coach, what is coach’s overall purpose, what are desired results, how best to produce these results. Methods and assignments include presentations, analyzing videos, group work, interviews, analyses of coaching philosophies, and constructing statement of one’s own philosophy of coaching. Letter grading.
473. Diversity Leadership in Sports and Athletics. (4) Seminar, four hours. Coaching and transformational leadership requires examination of important topics that depend upon analysis of complex, yet essential concepts. Examination and discussion of how and why sports, diversity, and leadership must be interconnected in order to meet needs of universities, professional organizations, and most importantly student-athletes. Sports as industry and as enterprise. Covers its history, purpose, evolution, and role in higher education and wider society. Emphasis on student-student, student-athlete, student-mentor, and student-parent relationships and outcomes, well-being and readiness for educational and professional opportunities in sports and beyond. Addresses growing need for greater gender, ethnic, and racial diversity in athletic leadership. While those who participate in sports, particularly those sports designated as revenue generating, represent much of gender and racial diversity in U.S., leadership of sports falls embarrassingly short. Emphasis on equity throughout. Letter grading.

474. Ethical Issues in Sports. (4) Lecture, three hours. Coaches and sport management professionals are likely to face numerous ethical issues and dilemmas in their day-to-day professional practices. Introduction to salient moral and ethical issues involved in physical education, sports, and coaching. Students gain analytical tools to make ethically informed decisions by introducing ethical theories and frameworks to guide decision-making in real-life situations. Covers content areas where ethical decision-making may be relevant including sportsmanship, gambling, coaching responsibilities, violence, drug use, and testing, race and gender equity, media, and commercialization of college sports. Includes lectures, discussions, analysis of case studies, and applications of decision-making tools to resolve ethical issues. Letter grading.

475. Mental Health in Athletics and Coaching. (4) Lecture, three hours. Introduction to mental health issues in context of athletics and coaching. Mental health issues are prevalent and on rise among athletes. Coaches and other sports personnel are often first line of defense and are best positioned to recognize symptoms and refer athletes to appropriate care and interventions. Cultivates greater awareness of prevalence of mental health issues among athletes. Enables students to recognize common symptoms and manifestations of mental health concerns (e.g., depression, anxiety, eating disorders, etc.). Students gain knowledge base for appropriate referrals and interventions, and range of tools for creation of safe spaces within teams to address mental health concerns. Cultivates informed practitioners who are sensitive to mental health concerns and empathetic to plight of many who suffer from these issues. Letter grading.

476. History and Philosophy of Sport and Physical Education. (4) Lecture, four hours. Focus on philosophical positions of body as determined by philosophical schools and intellectuals, past and present. Investigation that philosophical position of body has been significant factor in determining historic development of sport and physical activity/physical education; e.g., throughout history there were times where body was neglected, which negatively impacted development of sport. Theology also had impact upon how people viewed body. Sometimes sport thrived; sometimes it was condemned depending on theological beliefs. Body has history that is tied to sport history. Modernization theory used to explain how sport and physical activity evolved from pre-modern practice to modern practice. Study takes chronological, descriptive, and interpretive approaches. Letter grading.

477. Leadership and Management of Athletic Departments in Educational Institutions. (4) Seminar, four hours. Introduction to principles and practices of leadership and management of athletic departments in higher education with emphasis on social justice leadership. Students develop their own, authentic and intentional leadership philosophy for leading with purpose and integrity, and gain knowledge, skills, and values to effectively lead in athletic departments. Introduction to various models of leadership and to fundamental management skills such as strategic planning, project management, effective communication, team building, team leadership, program evaluation, and effecting organizational change. Includes reading, application to inquiry techniques, and case studies, and developing leadership philosophy of one’s own, formulating vision and mission statements, constructing strategic plans, developing communication strategies, and other individual and collaborative assignments around leadership and management of athletic departments. Letter grading.


4820. Instructional Strategies in Urban Education: Visual and Performing Arts. (1 to 4) Lecture, two hours; discussion, two hours. Focuses on instructional practices that integrate visual and performing arts into urban classrooms. Debriefing of field experiences im- plementing subject-center arts instruction, instruction connecting arts disciplines, and instruction connecting arts and other core disciplines. Advanced exploration of elements of each art form, as well as content and delivery strategies, and exploration of selection strategies to make learning accessible, engaging, and relevant. Letter grading.

490A. Instructional Decision Making. (4) Lecture, four hours. Analysis of instructional models relevant to public school education. Assumptions, procedures, and constraints of each strategy considered in terms of learner and task variables. Laboratory experiences in classroom settings permitting students systematically to apply and evaluate alternative instructional strate- gies. S/U or letter grading.


492. Data Centric Problem-Based Learning for Hu- manizing Purposes. (3) Lecture, three hours. Focuses on humanizing science, technology, engineering, and mathematics (STEM) education through integration of data science and connections to computational thinking into project-based learning (PBL) pedagogical approach. Integration of data connections to compu- tational thinking further contextualizes humanizing STEM education. Participants (pre-service teachers) explore how their K-12 students’ identities and lived experiences connect with STEM challenges. Critical analysis of data and practices of computational thinking (CT) are leveraged toward humanizing STEM purposes within curricular design and implementation of PBL project. Methods course is aligned with Cali- fornia state frameworks and California content standards for grades K-12, including English Language Development Standards—all of which address needs and various interests of diverse students. Letter grading.

495. Teaching Preparation in Education. (2) Seminar, two hours. Teaching assistants (TA) are supported while becoming more effective and reflective teachers. Focus on how to create student-centered, inclusive learning experiences. Study of theory (relationship between teaching and learning), research (what we know about how people learn), and logistics (how this actually happens for students). Students gain understanding of serving as TA in education (e.g., department, limited responsibilities to students, how/where to get additional support, etc.). Students have opportunities to apply (in their own sections) what they learn, to reflect collaboratively on their ongoing TA experiences, and to learn from experienced TAs. S/U grading.

498A-498B-498C. Directed Field Experience. (2 to 8 each) Clinical, to be arranged. Field experiences designed to increase understanding of student fields of study. May be repeated for credit. S/U or letter grading.

499A-499B-499C. Advanced Directed Field Experi- ence. (4 to 8 each) Clinical, to be arranged. Disserta- tion practicum that supports students in developing their proposals. Guides students on how to write their dissertation proposals and serves as writing workshop where students have opportunities to receive feedback from instructors, fellows, and peers. May be repeated for credit. Letter grading.

501. Co-op in Program in Special Education. (2 to 8) Tutorial, to be arranged. Preparation: consent of UCLA academic adviser and graduate dean, and host campus instructor, department chair, and graduate dean. Limited to UCLA doctoral students in special education. Used to record enrollment in practicum courses taken under cooperative arrangements with USC. S/U grading.

596. Directed Independent Study. (1 to 12) Tutorial, to be arranged. Individual study or research for graduate students. May be repeated for credit. S/U or letter grading.

597. Preparation for Master’s Comprehensive Ex-aminations or Doctoral Qualifying Examinations. (1 to 12) Tutorial, to be arranged. Individual study for master’s comprehensive examinations or for PhD or EdD qualifying examinations. May be repeated for credit. S/U grading.


**ELECTRICAL AND COMPUTER ENGINEERING**

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M.-C. Frank Chang, PhD (Wintek Endowed Professor of Electrical Engineering)
Panagiota D. Christofides, PhD (William D. Van Vorst Professor of Chemical Engineering Education)
Overview

Electrical and computer engineers are responsible for inventions that have revolutionized our society, such as the electrical grid, telecommunications, and automated computing and control. The profession continues to make vital contributions in many domains, such as the infusion of information technology into all aspects of daily life. To further these ends, the Department of Electrical and Computer Engineering fosters a dynamic academic environment that is committed to a tradition of excellence in teaching, research, and service. It has state-of-the-art research programs and facilities in a variety of fields. Departmental faculty members are engaged in research efforts across several disciplines in order to serve the needs of industry, government, society, and the scientific community. Interactions with other disciplines are strong. Faculty members regularly conduct collaborative research projects with colleagues in the Geffen School of Medicine; School of Education and Information Studies; School of Theater, Film, and Television; and College of Letters and Science.

Research

The primary areas in the department are circuits and embedded systems, computer engineering, physical and wave electronics, and signals and systems. These areas cover a broad spectrum of specializations in, for example, communications and telecommunications, computer vision, control systems, cybersecurity, electromagnetics, embedded computer networking, embedded computing systems, engineering optimization, integrated circuits and systems, machine learning, microelectromechanical systems (MEMS), nanotechnology, photonics and optoelectronics, plasma electronics, signal processing, and solid-state electronics.

Undergraduate Majors

Computer Engineering BS

The undergraduate curriculum provides all Computer Engineering majors with preparation in the mathematical and scientific disciplines that lead to a set of courses that span the fundamentals of the discipline in the major areas of data science and embedded networked systems. These collectively provide an understanding of many inventions of importance to our society, such as the Internet of Things, human-cyber-physical systems, mobile/wearable/implantable systems, robotic systems, and more generally smart systems at all scales in diverse spheres. The design of hardware, software, and algorithmic elements of such systems represents an already dominant and rapidly growing part of the computer engineering profession. Students are encouraged to make use of their computer science and electrical and computer engineering electives and a two-quarter capstone design course to pursue deeper knowledge within one of these areas according to their interests, whether for graduate study or preparation for employment.

Capstone Major

The Computer Engineering major is a designated capstone major that is jointly administered by the Computer Science and Electrical and Computer Engineering departments. Undergraduate students complete a design course in which they integrate their knowledge of the discipline and engage in creative design within realistic and professional constraints. Students apply their knowledge and expertise gained in previous mathematics, science, and engineering coursework. Students identify, formulate, and solve engineering problems and present their projects to the class.

Learning Outcomes

The Computer Engineering major has the following learning outcomes:

- Application of mathematical, scientific, and engineering knowledge
- Design of a software or hardware system, component, or process to meet desired needs within realistic economic, environmental, social, ethical, health, safety, security, reliability, manufacturability, and sustainability constraints
- Function productively on a team with others
- Identification, formulation, and solution of computer engineering problems
- Effective communication
Requirements

Preparation for the Major

Required: Computer Science 1 (or Electrical and Computer Engineering 1), 31, 32, 33, 35L, M51A (or Electrical and Computer Engineering M16); Electrical and Computer Engineering 3: Engineering 96L; Mathematics 31A, 31B, 32A, 32B, 33A, 33B, 61; Physics 1A, 1B, 1C, and 4AL or 4BL.

The Major

Required: Computer Science 111, 118 (or Electrical and Computer Engineering 132B), M151B (or Electrical and Computer Engineering M116C), M152A (or Electrical and Computer Engineering M116L), 180; Electrical and Computer Engineering 100, 102, 113, 115C; one course from Civil and Environmental Engineering 110, Electrical and Computer Engineering 131A, Mathematics 170A, 170E, Statistics 100A; 8 units of computer science and 8 units of electrical and computer engineering upper-division electives; three technical breadth courses (12 units) selected from an approved list available in the Office of Academic and Student Affairs; 8 units capstone design from either Electrical and Computer Engineering 180DA/180DB or 183DA/183DB.

Policies

The Major

An approved list of technical breadth courses is available in the Office of Academic and Student Affairs.

For information on UC, school, and general education requirements, see the Samueli school section in College and Schools.

Electrical Engineering BS

The undergraduate curriculum provides all Electrical Engineering majors with preparation in the mathematical and scientific disciplines that lead to a set of courses that span the fundamentals of the three major departmental areas of signals and systems, circuits and embedded systems, and physical wave electronics. These collectively provide an understanding of inferences of importance to society, such as integrated circuits, embedded systems, photonic devices, automatic computation and control, and telecommunication devices and systems.

Students are encouraged to make use of their electrical engineering electives and a two-term capstone design course to pursue deeper knowledge within one of these areas according to their interests, whether for graduate study or preparation for employment. See the department website for examples of specializations.

The Electrical Engineering major is accredited by the Engineering Accreditation Commission of ABET.

Capstone Major

The Electrical Engineering major is a designated capstone major. Undergraduate students complete a design course in which they integrate their knowledge of the discipline and engage in creative design within realistic and professional constraints. Students apply their knowledge and expertise gained in previous mathematics, science, and engineering coursework. Within a multidisciplinary team structure, students identify, formulate, and solve engineering problems and present their projects to the class.

Learning Outcomes

The Electrical Engineering major has the following learning outcomes:

- Application of knowledge of mathematics, science, and engineering
- Design of a system, component, or process to meet desired needs within realistic constraints
- Function as a productive member of a multidisciplinary team
- Effective communication
- Identification, formulation, and solution of electrical engineering problems

Requirements

Preparation for the Major

Required: Chemistry and Biochemistry 20A; Computer Science 31, 32; Electrical and Computer Engineering 2, 3, 10, 11L, M16 (or Computer Science M51A); Mathematics 31A, 31B, 32A, 32B, 33A, 33B; Physics 1A, 1B, 1C, 4AL, 4BL.

The Major

Required: Electrical and Computer Engineering 101A, 102, 110, 111L, 113, 131A; six core courses selected from Computer Science 33, Electrical and Computer Engineering 101B, 115A, 121B, 132A, 133A, 141, 170A; three technical breadth courses (12 units) selected from an approved list available in the Office of Academic and Student Affairs; 12 units of major field elective courses, at least 8 of which must be upper-division electrical and computer engineering courses—the remaining 4 units may be from upper-division electrical and computer engineering courses or from another engineering school department; and one two-term electrical and computer engineering capstone design course (8 units).

Policies

The Major

An approved list of technical breadth courses is available in the Office of Academic and Student Affairs.

Electrical and Computer Engineering 100 and CM182 may not satisfy elective credit.

For information on UC, school, and general education requirements, see the Samueli school section in College and Schools.

Undergraduate Minor

Data Science Engineering Minor

The minor is intended to expose students to the entire data science life cycle from both foundational and application perspectives. The foundational courses provide the engineering skills to collect, cleanse, and store data; analyze and draw inference from data; and take action and make decisions. A wide-ranging list of interdisciplinary courses focuses on various data-science applications using these skills.

Admission

To apply for the minor, students must have an overall grade-point average of 3.0 or better, have completed or be in the process of completing in the present quarter the two lower-division required courses with the grade B- or better, and file a petition through Message Center. Steps to apply are outlined on the Office of Academic and Student Affairs website. Information about the minor and the application are available on the minor website.

The Minor

Required Lower-Division Courses (8 units): Computer Science 32, Mathematics 33A.

Required Upper-Division Courses (12 units minimum): One course from Civil and Engineering 110, Electrical and Computer Engineering 131A, Mathematics 170A, 170E, or Statistics 100A; Computer Science M148 or Electrical and Computer Engineering M148; Computer Science 145 or M146 or Electrical and Computer Engineering M146.

Elective Upper-Division Courses (8 units minimum): Two courses from Computer Science M119, CM121, CM122, CM124, 143, 145 or M146 (if not taken as a required course), 161, 180, M182, Electrical and Computer Engineering 102, 113, 114, M119, 133A, M146 (if not taken as a required course), C147, 183DA and 183DB (both must be taken), Mechanical and Aerospace Engineering C137, 185, Statistics 100B, 115, 170, or C180.

Policies

Variable topics courses may be taken as topics apply.

Transfer credit for any of the above is subject to approval; consult with the undergraduate counselors before enrolling in any courses for the minor.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and student must have a minimum grade of C in each and an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Major

Electrical and Computer Engineering MS, PhD

The graduate program provides students with an opportunity to pursue advanced course-
Electrical and Computer Engineering

Lower-Division Courses

1. Undergraduate Seminar. (1) Seminar, one hour; outside study, two hours. Introduction by faculty members and industry lecturers to electrical engineering disciplines through current and emerging applications of autonomous systems and vehicles, biomedical devices, aerospace electronic systems, consumer products, digital science, and entertainment products (amusement rides, etc.), as well as energy generation, storage, and transmission. P/NP grading.

2. Physics for Electrical Engineers. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: Physics 1C. Introduction to concepts of modern physics necessary to understand solid-state devices, including elementary quantum theory, Fermi energies, and concepts of electrons in solids. Discussion of electrical properties of semiconductors leading to operation of junction devices. Letter grading.

2H. Physics for Electrical Engineers (Honors). (4) Lecture, four hours; discussion, two hours; outside study, eight hours. Introduction to field of electrical engineering. Basic circuits techniques with application to explanation of electrical engineering inventions such as telecommunications, electrical grid, automatic computing and control, and enabling device technology. Research frontiers of electrical engineering. Introduction to measurement and design of electrical circuits. Letter grading.

10. Circuit Theory I (4). Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: course 3 (or Computer Science 1 or Mathematics 10), Mathematics 33A, Physics 1B. Corequisites: course 11L (enforced only for Computer Science and Electrical Engineering majors), Mathematics 33B. Introduction to linear circuit analysis. Resistive circuits, capacitors, inductors and ideal transformers, Kirchhoff laws, node and loop analysis, first-order circuits, second-order circuits, Thévenin and Norton theorem, sinusoidal steady state, Letter grading.


11L. Circuits Laboratory I. (1) Lecture, one hour; laboratory, one hour; outside study, one hour. Enforced corequisite: course 10. Experiments with basic circuits containing resistors, capacitors, inductors, and transformers. Ohm’s law voltage and current division, Thévenin and Norton equivalent circuits, superposition, transient and steady state analysis. Letter grading.

110. Electrical and Electronic Circuits. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Requisites: Mathematics 33A, 33B or Mechanical and Aerospace Engineering 82, Physics 1C. Not open for credit to students who have completed course 110. Electrical quantities, linear circuit elements, circuit principles, signal transmission, AC and DC circuit behavior, analog and digital circuits, small signal models, and operational amplifiers. Letter grading.

101A. Engineering Electromagnetics. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: Mathematics 32A and 32B, or 33A and 33B, Physics 1C. Corequisites: course 10. Electromagnetic field concepts, waves and phasors, transmission lines and Smith chart, transient responses, vector analysis, introduction to Maxwell equations, static and quasi-static electric and magnetic fields. Letter grading.

101B. Electromagnetic Waves. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 101A. Time-varying fields and Maxwell’s equations, vector addition and interaction with media, energy flow and Poynting vector, guided waves in waveguides, phase and group velocity, radiation and antennas. Letter grading.


110H. Circuit Theory II (Honors). (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Enforced requisite: course 10, M16 (or Computer Science 51A). Corequisite: course 111L. Experiments with basic circuits containing resistors, capacitors, inductors, and transformers. AC steady state analysis, AC steady state power, network functions, poles and zeros, frequency response, mutual inductance, ideal transformer, application of Laplace transforms to circuit analysis. Letter grading.

110L. Circuit Measurements Laboratory. (2) Laboratory, four hours; outside study, two hours. Requisite: course 100 or 110. Experiments with basic circuits containing resistors, capacitors, inductors, and op-amps. Ohm’s law voltage and current division, Thévenin and Norton equivalent circuits, superposition, transient and steady state analysis, and frequency response principles. Letter grading.

111L. Circuits Laboratory II. (1) Lecture, one hour; laboratory, one hour; outside study, one hour. Enforced requisite: courses 10, 111L. Corequisite: course 110. Experiments with electrical circuits containing resistors, capacitors, inductors, transformers, and op-amps. Steady state power analysis, frequency response principles, dc biasing circuits, Small-signal analysis. Operational amplifier systems. Letter grading.


113. Digital Signal Processing. (4) Lecture, two hours; laboratory, four hours; outside study, six hours. Enforced requisite: course 113. Real-time implementation of digital signal processing algorithms on digital processor chips. Experiments involving A/D and D/A conversion, aliasing, digital filtering, sinusoidal oscillators, Fourier transforms, and finite word-length effects. Course project involving original design and implementation of machine learning and signal processing systems for communications, radar, medical and other imaging, speech, music, or video using DSP chip. Completion of projects begun in course 113DB. Letter grading.

113DB. Digital Signal Processing Design. (4) Lecture, two hours; laboratory, four hours; outside study, six hours. Enforced requisite: courses 113, 113DA. Real-time implementation of digital signal processing algorithms on digital processor chips. Experiments involving A/D and D/A conversion, aliasing, digital filtering, sinusoidal oscillators, Fourier transforms, and finite word-length effects. Course project involving original design and implementation of signal processing systems for communications, speech, audio, or video using DSP chip. Completion of projects begun in course 113DB. Letter grading.

114. Speech and Image Processing Systems Design. (4) Lecture, three hours; discussion, one hour; laboratory, two hours; outside study, six hours. Enforced requisite: course 113. Design principles of speech and image processing systems. Speech production, analysis and modeling in first half of course; design techniques for image enhancement, filtering, transformation in second half. Lectures supplemented by laboratory implementation of speech and image processing tasks. Letter grading.


115AL. Analog Electronics Laboratory I (2) Laboratory, four hours; outside study, two hours. Enforced requisite: course 115A. Experimental determination of device characteristics, resistive diode
circuits, single-stage amplifiers, compound transistor stages, effect of feedback on single-stage amplifiers, operational amplifiers, and operational amplifier circuits. Students perform various processing tasks using computer-aided design experience based on individual student hardware design and implementation platforms. Letter grading.


115C. Digital Electronic Circuits. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: course 100 or 115A, and Computer Science 5M1A. Transistor-level digital circuit design and analysis. Basic properties of logic gates, flip-flops, latches, counters, etc., computer-aided simulation of digital circuits. Letter grading.

115E. Design Studies in Electronic Circuits. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 115B. Description of process of circuit design through laboratory exercises. Topics vary by instructor and include communication circuits, power supplies, recommended course 115B or course 115M1A, Computer Science 111, Computer system organization and design, implementation of CPU datapath and control, instruction set architecture (hyper-, parallel, virtual memory), organization and management, input/output subsystems (bus structures, interrupts, DMA), performance evaluation, pipelined processors. Letter grading.

M116C. Computer Systems Architecture. (4) (Same as Computer Science M151B.) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course M16 or Computer Science M51A. Hands-on design experiences in FPGAs and using computer-aided design tools for schematic capture and simulation, implementation of complex circuits using programed array logic, introduction to digital tool based on SUPREM, Computer Science 111. Course study, seven hours. Letter grading.

M119. Fundamentals of Embedded Networked Systems. (4) (Same as Computer Science M119.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: course 132B or Computer Science 118; one course from course 131A, Civil and Environmental Engineering 110, Mathematics 170A, 170E, Statistics 100A; Computer Science 33. Design tradeoffs and principles of operation of cyber physical systems such as devices and systems constituting the Internet of Things. Topics include signal propagation and debugging of complex circuits, use of computer-aided design tools for schematic capture and simulation, implementation of complex circuits using programed array logic, introduction to digital tool based on SUPREM. Course study, seven hours. Letter grading.

121A. Principles of Semiconductor Device Design. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Enforced requisite: course 2. Introduction to principles of operation of bipolar and MOS transistors, equivalent circuits, high-frequency behavior, voltage limitations. Letter grading.

121DA-121DB. Semiconductor Processing and Device Design. (4) Design fabrication and characterization of p-n junction and transistors. Students perform various processing tasks such as wafer preparation, oxidation, diffusion, metallization, and photolithography. Introduction to CAD tools used in integrated circuit processing and device design. Device structure optimization tool based on MEDICI; integrated circuit design tool based on SUPREM. Course familiarizes students with those tools. Using CAD tools, CMOS process integration to be designed. 121DA, Lecture, four hours; laboratory, four hours; outside study, four hours. Enforced requisite or corequisite: course 121B. In progress grading (credit to be given only on completion of units 121B, 121DA). Lecture, two hours; laboratory, four hours; outside study, six hours. Enforced requisites: courses 121B, 121DA. Letter grading.

123A. Fundamentals of Solid-State I. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Requisite: course 2 or Physics 1C. Limitation to junior/senior engineering majors. Fundamentals of solid-state, introduction to quantum mechanics and quantum statistics applied to solid-state, Crystal structure, energy levels in solids, and band theory and semiconductor properties. Letter grading.

123B. Fundamentals of Solid-State II. (4) Lecture, four hours; outside study, eight hours. Enforced requisite: course 123A. Discussion of solid-state properties, lattice vibrations, thermal properties, dielectric, magnetic, and superconducting properties. Letter grading.

126. Principles of Nanoelectronics. (4) Lecture, four hours; discussion, four hours; outside study, four hours. Requisite: Physics 1C. Introduction to fundamentals of nanoscale for electronics nanosystems. Principles of fundamental quantities: electron charge, effective mass, electron spin, electron mobility, theoretical approaches. From these nanoscale components, discussion of basic behaviors of nanosystems such as analysis of dynamics, variability, and noise associated with those of scaled CMOS. Incorporation of design project in which students are challenged to design electronic nanosystems. Letter grading.

131A. Probability and Statistics. (4) Lecture, four hours; discussion, one hour; outside study, 10 hours. Requisites: Mathematics 32B, 33B. Introduction to basic concepts of probability, including random variables and random vectors, generating functions, characteristic functions, and limit theorems. Applications to communication, control, and signal processing. Introduction to computer simulation and generation of random variables. Letter grading.

132A. Introduction to Communication Systems. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: courses 102, 115A, 131A. Review of basic probability, basics of hypothesis testing, sufficient statistics and waveform communication, signal-design tradeoffs for digital communications, basics of error control coding, bit error rate, symbol interference channels and orthogonal frequency division multiplexing, digital pulse, basic wireless communications. Letter grading.


133A. Analytical Numerical Computing. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 131A, and Civil Engineering 110, Mathematics 170A or 170E or Statistics 100A; Computer Science 32 or Program in Computing 10C. Application of computational techniques to the breadth of data science. Foundations for modeling data sources, principles of operation of common tools for data analysis, application of tools and models to data, introduction to statistical foundations, regression, classification, neural networks, clustering, expectation maximization, principal component analysis, decision theory, reinforcement learning and deep learning. Letter grading.

134. Graph Theory in Engineering. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Basics of graph theory, including trees, bipartite graphs, graph matching, planar graphs and networks. Emphasis on reducing real-world engineering problems to graph theory formulations. Letter grading.


142. Linear Systems: State-Space Approach. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 102. State-space methods of linear system analysis and synthesis, with application to problems in networks, control, and system modeling. Letter grading.

C143A. Neural Signal Processing. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: course 131A, Mathematics 33A. Topics include fundamentals of signal processing, dynamic, temporal patterns, and activity in neurons; technology for measuring neural activity; spiking statistics and Poisson processes; generative models and classification; regression and Kalman filtering; principal components analysis, factor analysis, and expectation maximization. Concurrently scheduled with course C243A. Letter grading.

M146. Introduction to Machine Learning. (4) (Same as Computer Science M146A.) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 131A or Civil and Environmental Engineering 110 or Mathematics 170A or 170E or Statistics 100A; Computer Science 32 or Program in Computing 10C. Application of computational techniques to the breadth of data science. Foundations for modeling data sources, principles of operation of common tools for data analysis, application of tools and models to data, introduction to statistical foundations, regression, classification, neural networks, clustering, expectation maximization, principal component analysis, decision theory, reinforcement learning and deep learning. Letter grading.

C147. Neural Networks and Deep Learning. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 131A, 133A or 205A, and M146, or equivalent. Review of machine learning concepts: maximum likelihood; supervised classification; neural network architectures; backpropagation; regularization for training neural networks; optimization techniques; deep learning and feedforward neural networks; practical CNN architectures; deep learning libraries in Python; recurrent neural networks, backpropagation through time, long short-term memory and gated recurrent units; variational autoencoders; generative adversarial networks; maximum likelihood; supervised examples and training. Concurrently scheduled with course C247. Letter grading.

M148. Introduction to Data Science. (4) (Same as Computer Science M148.) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: one course from 131A, Civil and Environmental Engineering 110, Mathematics 170A, Mathematics 170E, or Computer Science 32 or Program in Computing 10A, and 10B. How to analyze data arising in real world so as to understand corresponding phenomenon. Covers topics in machine learning, data analytics, and statistical modeling clas-
scially employed for prediction. Comprehensive, hands-on overview of data science domain by blending theoretical and practical instruction. Data science literacy, data collection and cleaning, feature engineering, model selection, and prediction methodologies. Letter grading.

149. Foundations of Computer Vision. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Recommended requisites: courses 102, 131A. Mathematics 33A. Covers foundations of computer vision from both theoretical and practical perspective. Particular emphasis on classical computer vision, which should provide employment in machine learning. Study is relevant for various majors in the sciences specializing in artificial intelligence, cyberphysical systems and information engineering, robotics, machine learning, perception, and others looking for interdisciplinary specialties in artificial intelligence, cyberphysical systems and information engineering, robotics, machine learning, perception, and others looking for interdisciplinary training. Enforced requisite: course 101B. Letter grading.

M153. Introduction to Microscale and Nanoscale Manufacturing. (4) (Same as Bioengineering M153, Chemical Engineering M153, and Mechanical and Aerospace Engineering M158B.) Lecture, three hours; laboratory, four hours; outside study, five hours. Enforced requisites: Chemistry 20A, Physics 1A, 1B, 1C, 4A. Introduction to general manufacturing methods, mechanical design, and fabrication. Micro and nanomanufacturing. Focus on concepts, physics, and instruments of various microfabrication and nanofabrication techniques that have been broadly applied in industry and academic settings. Introduction to computer numerical control fabrication. Letter grading.


162A. Wireless Communication Links and Antennas. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 101B. Transmission line design and analysis. Waveguide, impedance matching techniques, power dividers, directional couplers, active devices, transistor amplifier design. Letter grading.

163C. Fundamental Principles of Radiofrequency and Microwave Systems. (4) Lecture, four hours; outside study, eight hours. Enforced requisite: course 101B. Theory and design of modern radiofrequency (RF) and microwave systems such as cellular communications, satellite systems, radar systems, wireless sensors, and biological applications of microwaves such as magnetic resonance imaging (MRI). Letter grading.

163DA. Microwave and Wireless Design I. (4) Lecture, one hour; laboratory, three hours; outside study, eight hours. Enforced requisite: course 101A, 101B. Course 163DA is required for 163DB. Limited to seniors and graduate students. Enforced requisites: courses 102, 131A. Hands-on experience with design, selection, and application of microwave and wireless components and systems. Letter grading.

163DB. Microwave and Wireless Design II. (4) Lecture, one hour; laboratory, three hours; outside study, eight hours. Enforced requisites: courses 101A, 101B. Limited to seniors. Design of radio frequency circuits and systems, with emphasis on both theoretical foundations and hands-on experience. Design of radio frequency transceivers and their building blocks according to given specifications or in form of open-ended problems. Introduction to advanced topics related to projects through lecture and laboratories. Creation of projects using advanced techniques and systems in application context, including trade-offs among subsystems while meeting constraints and optimizing metrics related to cost, performance, ease of use, manufacturability, testing, and other real-world issues. Oral and written presentations of project results required. Letter grading.

164DA-164DB. Electronic Circuits and Systems Design. (4) Lecture, two hours; laboratory, two hours; outside study, eight hours. Enforced requisite: course 115B (may be taken concurrently), or instructor consent. Course 164DA recommended to 164DB. In Progress (164DA and letter (164DB) grading. 164DB. Lecture, one hour; laboratory, three hours; outside study, eight hours. Enforced requisite: course 164DA. Letter grading.

170A. Principles of Photonics. (4) Lecture, four hours; recitation, one hour; outside study, seven hours. Enforced requisite: courses 2, 101A. Development of solid foundation on essential principles of photonics from ground up with minimum prior knowledge on this subject. Topics include optical properties of materials, optical wave propagation and modes, optical interferometers and resonators, optical coupling and modulations. Applications of lasers, semiconductors, and light-emitting diodes, and optical detection. Letter grading.

170B. Lasers and Photonic Devices. (4) Lecture, four hours; recitation, one hour; outside study, seven hours. Enforced requisite: course 170A. Coverage of laser physics, related photonic devices, and applications of lasers. Topics include resonators, thermal radiation, Einstein relations, and cavity design of lasers. Resonator media, optical modulation and detection. Letter grading.

170C. Photonic Sensors and Solar Cells. (4) Lecture, four hours; recitation, one hour; outside study, seven hours. Enforced requisite: course 170A. Fundamentals of detection of light for communication and sensing, as well as conversion of light to electrical energy in solar cells. Introduction to photodetectors, photodiodes, photodetector inefficiencies, noise processes and figures of merit, thermal detectors, and photovoltaic solar cells of various types and materials. Letter grading.

171LP. Data Communication Systems Laboratory. (2 or 4) (Same as Computer Science M171L.) Lecture, four to eight hours; outside study, two to four hours. Recommended prerequisite: course M116. Limited to seniors. Not open to students with credit for another course in data communications. Preparation for senior design project. Design of analog circuits, components and systems, emphasizing theoretical foundations and hands-on experience. Design of key analog and digital building blocks, including specifications or in form of open-ended problems. Introduction to advanced topics related to projects through lecture and laboratories. Creation of projects using advanced techniques and systems in application context, including trade-offs among subsystems while meeting constraints and optimizing metrics related to cost, performance, ease of use, manufacturability, testing, and other real-world issues. Oral and written presentations of project results required. Letter grading.

173DA. Advanced Topics in Photonic Systems. (4) Lecture, four hours; discussion, two hours; outside study, eight hours. Enforced requisite: course 101A. Study of advanced topics in photonic systems. Focus on topics related to real-world applications. Letter grading.

180DA-180DW. Systems Design. (4–4) Advanced systems design integrating communications, control, and signal processing subsystems. Introduction to advanced topics related to projects through lecture and laboratories. Open-ended projects vary each offering. Student teams create high-performance designs that manage trade-offs among subsystem components, including cost, performance, ease of use, and other real-world issues. Topics vary each offering. Enforced requisite: course 101A. Letter grading.

181DA-181DB. Honors Thesis. (4–4) Tutorial, one hour; outside study, 11 hours. Limited to seniors. Research by individuals or small teams under supervision of faculty mentor, leading to completion and presentation of an honors thesis. Study of research and development: project conception, planning, development and testing; design iteration cycle; research and data documentation standards; how to read technical literature. Planning, execution, and documentation of original open-ended research/development project. 181DA. Study of research fundamentals, conception of project plan, and first iteration of design such as experiment, simulation, algorithm, or hardware artifact, each with testing and validation plan. Written documentation of design with oral presentation. In Progress grading (credit to be given only on completion of course 181DW). Enforced requisite: course 181DA. Letter grading.

181DB. Written documentation in form of thesis documenting results in their societal and technical contexts, and oral presentation/demonstration of final results. Letter grading.

CM182. Science, Technology, and Public Policy. (4) (Same as Public Affairs M164 and Public Policy CM182.) Lecture, three hours. Recent and continuing advances in science and technology are raising profound questions of public policy. Consideration of selection of critical policy issues, each of which has substantial ethical, social, economic, political, scientific, and technological aspects, currently scheduled with course CM282. Letter grading.

183DA. Design of Robotic Systems I. (4) Lecture, four hours; laboratory, two hours; outside study, six hours. Enforced requisite: course 115B. Limited to students with credit for course 183DB or with permission of the instructor. Introduction to robotics and computer scientific applications in robotics. Emphasis is on design of end-to-end systems in application context, including trade-offs among subsystems while meeting constraints and optimizing metrics related to cost, performance, ease of use, manufacturability, testing, and other real-world issues. Oral and written presentations of project results required. Letter grading.

183DB. Design of Robotic Systems II. (4) Lecture, four hours; laboratory, two hours; outside study, six hours. Enforced requisite: course 115B. Limited to students with credit for course 183DA. Design, analysis, and construction of advanced robotic systems for various applications. Oral and
written presentation of project results. In Progress grading (credit to be given only on completion of course 183DB).

183DB. Design of Robotic Systems II. (4) Laboratory, four hours lecture, six hours laboratory. Requisite: course 183DA. Recommended: courses 141, 142. Limited to senior Electrical Engineering majors. Topics in robotic design include integrated electromechanical design; design of software; design of sensors and actuators; and design automation. Topics in robotic manufacturing include materials, sensors and actuators, programming, and rapid prototyping. Topics in control include sensors, regulation, motion, and feedback control. Open-ended projects vary annually. Student teams create and analyze robotic systems for various applications. Oral and written presentation of project results. Letter grading.

184DA-184DB. Independent Group Project Design. (2-2) Laboratory, five hours discussion, one hour. Enforced requisites: courses M16, 110, 110L. Course 184DA is enforced requisite to 184DB. Courses centered on group project that runs year long to give students training in teamwork, design problem solving, software design, and project organization. Several projects based on autonomous robots that traverse small mazes and courses offered yearly and target regional competitions. Students must submit proposals that are evaluated and approved by faculty members. Topics include sensing circuits and amplifier-based design, microcontroller programming, feedback control, actuation, and robot motion. In Progress (184DA) and letter (184DB) grading.

M155. Introduction to Plasma Science and Engineering. (4) (Same as Earth, Planetary, and Space Sciences M156 and Physics M122.) Lecture, four hours; laboratory, three hours; discussion, one hour; outside study, eight hours. Requisite: course 101A or Physics 110B. Senior-level introductory course on  electrolydynamics of plasmas in laboratory, near-Earth space and astrophysical settings. Covers selected applications taken from fusion energy, space weather, materials processing, generation of coherent radiation and particle accelerators. Letter grading.

188. Special Courses in Electrical Engineering. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Special topics in electrical engineering vary. May be repeated once for credit with topic change. Letter grading.

196. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

194. Research Group Seminars: Electrical Engineering. (2 to 4) Seminar, four hours; outside study, eight hours. Designed for undergraduate students who are part of research group. Discussion of research methods and current literature in field. May be repeated for credit. Letter grading.

199. Directed Research in Electrical Engineering. (2 to 8) Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit with school approval. Individual contract required; enrollment petitions available in Office of Academic and Student Affairs. Letter grading.

Graduate Courses

201A. VLSI Design Automation. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 115C. Fundamentals of design automation of VLSI circuits and systems, including introduction to circuit and system platforms such as field-programmable gate arrays and multicore systems; high-level synthesis, logic synthesis, and technology mapping; physical design; and testing and verification. Letter grading.

201C. Modeling of VLSI Circuits and Systems. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 115C. Detailed study of VLSI circuit and system models considering performance, signal integrity, power, thermal effects, reliability, and manufacturability. Discussion of principles of modeling and optimization codevelopment. Letter grading.

210D. Design in Nanoscale Technologies. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 115C. Challenges of digital circuit design and layout in deeply scaled technologies, with focus on design-manufacturing interactions. Summary of legal and design issues, and methods for design automation and technology transfer. Letter grading.

202A. Embedded Systems. (4) (Same as Computer Science M213A.) Lecture, four hours; discussion, one hour; outside study, eight hours. Enforced requisite: course M213A. Topics include design for graduate computer science and electrical engineering students. Methodologies and technologies for design of hardware, software, embedded operating systems and software platforms for embedded systems, techniques for modeling and specification of system behavior, software organization, real-time operating systems, communication and packet scheduling, low-power battery and energy-aware system design, timing synchronization, fault tolerance, and debugging, and techniques for hardware and software architecture optimization. Theoretical foundations as well as practical design methods. Letter grading.

202B. Energy-Aware Computing and Cyber-Physical Systems. (4) (Same as Computer Science M213B.) Lecture, four hours; outside study, eight hours. Requisite: course M16 or Computer Science M51A. Recommended: course M116C or Computer Science M151B, and Computer Science 111. Systematic study of energy consumption in computing and communication at various scales ranging across embedded, mobile, personal, enterprise, and data-center scale. Concepts include modeling and simulation of hardware and software platforms for embedded systems; embedded systems; embedded software; software architecture optimization. Letter grading.

202C. Networked Embedded Systems Design. (4) Lecture, four hours; laboratory, four hours; outside study, four hours. Designed for graduate computer science and electrical engineering students. Training in combination of networked embedded systems design and embedded operating system and software architecture. Concepts include research and industry career paths in wireless devices for applications ranging from conventional wireless mobile devices to new area of wireless health. Laboratory design modules and course projects based on state-of-art embedded hardware platform. Letter grading.

205A. Matrix Analysis for Scientists and Engineers. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Preparation: one undergraduate linear algebra course. Designed for first-year graduate students in all branches of engineering, science, and related fields. Topics include: matrix algebra; linear algebra, language in which virtually all of modern science and engineering is conducted. Review of matrices taught in undergraduate courses and introduction to graduate-level topics. Letter grading.


209AS. Special Topics in Circuits and Embedded Systems. (2 to 4) Seminar, two to four hours; outside study, four to eight hours. Seminars and discussions on current and advanced topics in one or more aspects of circuits and embedded systems, such as digital, analog, mixed-signal, and radio frequency integrated circuits (RF ICs); electronic design automation; wireless communication circuits and systems; embedded processors and embedded software; distributed sensor and actuator networks; robotics; and embedded security. May be repeated for credit with topic change. S/U or letter grading.

209BS. Seminar: Circuits and Embedded Systems. (2 to 4) Seminar, two to four hours; outside study, four to eight hours. Preparation: prior training in probability theory, random processes, and linear algebra. Recommended requisites: courses 205A, 241A. Mean-square-error estimation and filters, least-squares estimation and filters, steepest-descent algorithms, stochastic-gradient algorithms, convergence, stability, tracking, and performance, algorithms for adaptation and learning, adaptive filters, learning and classification, optimization, and artificial intelligence. Letter grading.


211A. Digital Image Processing I. (4) Lecture, three hours; discussion, one hour; laboratory, four hours; outside study, four hours. Preparation: computer programming experience. Requisite: course 113. Fundamentals of digital image processing theory and technology.
niques. Topics include two-dimensional linear system theory, image transforms, and enhancement. Concepts covered in lecture are applied in computer laboratory assignments.


214B. Advanced Topics in Speech Processing. (4) Lecture, three hours; discussion, one hour; computer assignments, two hours; outside study, six hours. Requisite: course 124. Basics of speech analysis/synthesis. Techniques include linear prediction, filter-bank models, and homomorphic filtering. Applications to speech synthesis, automatic recognition, and hearing aids. Letter grading.

215A. Analog Integrated Circuit Design. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 115B. Analysis and design of analog integrated circuits. MOS and bipolar device structures and models, single-stage and differential amplifiers, noise, feedback, operational amplifiers, offset and distortion, sampling devices and discrete-time circuits, bandgap references. Letter grading.


215C. Analysis and Design of RF Circuits and Systems. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: courses 115C, M216A. Analysis and comparison of modern logic families. VLSI memories (SRAM, DRAM, and ROMs). Accuracy of various simulation models and simulation methods for digital circuits. Letter grading.

215D. Analog Microsystem Design. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 215A. Analysis and design of data conversion interfaces and filters. Sampling circuits and architectures, D/A conversion techniques, A/D converter architectures, building blocks, precision techniques, quantization error and continuous-time filters. Letter grading.

215E. Signaling and Synchronization. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 215A, M216A. Analysis and design of circuits for synchronization and communication for VLSI systems. Use of both digital and analog design techniques to improve data rate of electronics between functional blocks, chips, and systems. Advanced clocking methods, lockers, phase-locked loops, clock generation, and high-performance wire-line transmitters, receivers, and timing recovery circuits. Letter grading.

216A. Design of VLSI Circuits and Systems. (4) (Same as Computer Science M258A.) Lecture, four hours; discussion, two hours; laboratory, four hours; outside study, eight hours. Requisites: courses M16 or Computer Science M51A, and 115A. Recommended: course 115C, LSI/VLSI design and application in user systems. Fundamental design techniques that can be used to implement complex integrated systems on chips. Letter grading.

216B. VLSI Signal Processing. (4) Lecture, four hours; outside study, eight hours. Advanced concepts in VLSI signal processing, with emphasis on architecture design and optimization within block-based description that can be mapped to hardware. Fundamental concepts of DSP algorithm design, VLSI architecture, and circuit design applied to complex DSP algorithms in emerging applications for personal communications and healthcare. Letter grading.

216C. LSI in Computer System Design. (4) (Same as Computer Science M226.) Lecture, four hours; laboratory, four hours; outside study, four hours. Requisite: course M216A. LSI/VLSI design and application in computer systems. In-depth studies of VLSI architectural and VLSI design tools. Letter grading.

217. Biomedical Imaging. (4) (Same as Biomedical M217.) Lecture, three hours; discussion, one hour; outside study, eight hours. Requisite: course 114 or 211A. Optical imaging modalities in biomedicine. Noninvasive medical imaging and new medical fields discussed briefly for comparison purposes. Letter grading.

218. Network Economics and Game Theory. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 124. Game theory and economics are used in various speech-processing applications, with focus on speech recognition by humans and machine. Physiology and speech production; human perception; Dynamic Time Warping (DTW) and Hidden Markov Models (HMM) for automatic speech recognition systems, pattern classification, and search algorithms. Applications to VLSI in future designs. Letter grading.

219. Large-Scale Data Mining: Models and Algorithms. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Introduction of variety of scalable data mining tools, both predictive and causal, from different disciplines. Topics include supervised and unsupervised data mining tools from machine learning, such as support vector machines, different regression engines, different types of regularization and kernel techniques, deep learning, and Bayesian techniques. Techniques to evaluate relative performance of different methods and their applicability. Includes computer projects that explore entire data analysis and modeling cycle; collecting and cleaning large data sets, developing predictive and causal models, and evaluating performance of different models. Letter grading.

221A. Physics of Semiconductor Devices I. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Physical principles and design considerations of junction devices. Letter grading.

221B. Physics of Semiconductor Devices II. (4) Lecture, four hours; outside study, eight hours. Principles and design of multi-bandgap devices and charge-coupled devices. Letter grading.

221C. Microwave Semiconductor Devices. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Physical principles and design considerations of microwave solid-state devices: Schottky barrier diodes, IMPATT diodes, transferred electron devices, tunnel diodes, microwave transistors. Letter grading.

222. Signal-processed Circuits Fabrication Processes. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 2. Principles of integrated circuits fabrication processes. Technological limitations of integrated circuits design. Topics include both crystal and epitaxial growth, thermal oxidation, diffusion, ion-implantation, chemical vapor deposition, sputter etching, lithography, and metallization. Introduction of advanced process simulation tools. Letter grading.


224. Solid-State Electronics II. (4) Lecture, four hours; outside study, eight hours. Recommended requisite: course 223. Theoretical methods for circulating electronics and optical properties of semiconductor structures. Quantum size effects and low-dimensional systems. Application to semiconductor nanometer scale devices, including negative resistance diodes, transistors, and detectors. Letter grading.


225A. Advanced Electrical Engineering Seminar. (2) Seminar, two hours; outside study, six hours. Preparation: successful completion of PhD major field examination. Seminar on current research topics in solid-state, nonlinear, and microwave electronic devices, diffusion in semiconductors, optical and microwave semiconductor devices, nonlinear optics, and electronics and circuits. Letter grading.

225B. Advanced Electrical Engineering Seminar. (2) Seminar, two hours; outside study, six hours. Preparation: successful completion of PhD major field examination. Seminar on current research topics in solid-state, nonlinear, and microwave electronic devices, diffusion in semiconductors, optical and microwave semiconductor devices, nonlinear optics, and electronics and circuits. Letter grading.

226A. Large-Scale Data Mining: Models and Algorithms. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Introduction of variety of scalable data mining tools, both predictive and causal, from different disciplines. Topics include supervised and unsupervised data mining tools from machine learning, such as support vector machines, different regression engines, different types of regularization and kernel techniques, deep learning, and Bayesian techniques. Techniques to evaluate relative performance of different methods and their applicability. Includes computer projects that explore entire data analysis and modeling cycle; collecting and cleaning large data sets, developing predictive and causal models, and evaluating performance of different models. Letter grading.
231A. Information Theory: Channel and Source Coding. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 131A. Fundamentals of information theory, transmission and processing, and learning. Topics include limits and algorithms for lossless data compression, connections to model estimation and learning, channel capacity, rate versus distortion in lossy compression, and basics of multiple-access networks. Letter grading.

231B. Network Information Theory. (4) Lecture, four hours; outside study, eight hours. Enforced requisite: course 231A. Point-to-point multiple-input, multiple-output (MIMO) wireless channels: capacity and theorems in network coding, combinational approach and alphabet size, linear programming approach and throughput benefits, network code design algorithms, secure network coding for wireless, other applications. Letter grading.

231E. Channel Coding Theory. (4) Lecture, four hours; outside study, eight hours. Requisite: course 131A. Fundamentals of error control codes and decoding algorithms. Topics include block codes, convolutional codes, trellis codes, and turbo codes. Letter grading.

232A. Stochastic Modeling with Applications to Telecommunication Systems. (4) Lecture, four hours; outside study, eight hours. Requisite: course 131A. Stochastic processes; applications to telecommunication systems, traffic engineering, business, and management. Discrete-time and continuous-time Markov processes; renewal processes; Markov-renewal processes, Markov-renewal, semi-Markov and semiregenerative stochastic processes. Decision and reward processes. Applications to traffic and queueing analysis, basic telecommunications and computer communication networks, Internet, and management systems. Letter grading.

232B. Queueing Systems and Intelligent Transportation Networks. (4) Lecture, four hours; outside study, eight hours. Requisite: course 131A. Queueing theory; analysis and design of queueing systems; traffic management and design of intelligent transportation systems, telecommunications networks, autonomous vehicular networks, business and management systems. Markovian and non-Markovian queueing systems and networks. Applications to traffic engineering, transportation and autonomous vehicular systems; communication networks, management and business systems. Letter grading.


233E. Speech and Image Processing, and Complex Networks: Design and Algorithms. (4) Lecture, four hours; recitation, one hour; outside study, seven hours. Modeling and design of large-scale complex networks, including social networks. Renewal and queuing networks, World Wide Web, and gene networks. Modeling of characteristic topological features of complex networks, such as power laws and percolation thresholds; random planar networks; applications for various applications, such as e-mail spam detection, friendship recommendations, viral popularity, and epidemics. Introduction to network algorithms, computational complexity, random graphs, poly-time completeness. Letter grading.

233. Wireless Communications System Design, Modeling, and Implementation. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 113. Covers algorithms, architectures, and implementation for radio transceivers, physical, and network layer functionalities. Topics include wireless channel modeling, single-carrier and MIMO systems, radio impairments and their correction, architectures and circuits design trade-offs, wideband spectrum sensing, wideband signaling, cognitive radio, massive multiple-input, multiple-output (MIMO) systems, and applications of Internet of things (IoT) communication. Letter grading.

234A. Network Coding Theory and Applications. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 131A. Network coding: combinatorial approach and alphabet size, linear programming approach and throughput benefits, network code design algorithms, secure network coding for wireless, other applications. Letter grading.

235A. Mathematical Foundations of Data Storage Systems. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 113A or equivalent. Research developments in new mathematical techniques for emerging large-scale, ultra-reliable, fast, and affordable data storage systems. Topics include, but are not limited to, graph-based codes and algebraic codes and decoders for modern storage devices (e.g., Flash), rank modulation, writing codes, algorithms for data deduplication and synchronization, and redundant array of independent disks (RAID) systems. Letter grading.

236A. Linear Programming. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: Mathematics 115A or equivalent knowledge of linear algebra. Basic graduate course in linear optimization; convexity and linear programming; second-order cone and semidefinite programming, geometric programming. Simplex method. Interior-point methods. Decomposition and large-scale linear programming. Quadratic programming and complementarity pivot theory. Engineering applications. Introduction to integer linear programming and computational complexity theory. Letter grading.


238. Multimedia Communications and Processing. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 131A. Key concepts, principles, and algorithms of online learning and learning how to make decisions under uncertainty in broad context, including Markov decision processes, optimal stopping, reinforcement learning, structural results for online learning, multiarmed bandits learning, multiagent learning, multiagent deep learning. Letter grading.

239A. Special Topics in Signals and Systems. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Special topics in one or more aspects of signals and systems, such as communication, control, image processing, information theory, machine learning, computational speech processing, telecommunications, and VLSI signal processing. May be repeated for credit with topic change. S/U or letter grading.

239BS. Seminar: Signals and Systems. (2 to 4) Seminars for four hours; discussion, one hour to eight hours. Seminars and discussions on current and advanced topics in one or more aspects of signals and systems, such as communications, control, image processing, information theory, multimedia, computer networking, optimization, speech processing, telecommunications, and VLSI signal processing. May be repeated for credit with topic change. S/U grading.

M240A. Linear Dynamic Systems. (4) (Same as Chemical and Biomolecular Engineering M270A.) Lecture, four hours; outside study, eight hours. Requisite: course 141 or Mechanical and Aerospace Engineering 171A. State-space models of linear time-invariant (LTI) and time-varying (LTV) systems in continuous and discrete time. Linear algebra concepts such as eigenvalues and eigenvectors of matrices, Cayley-Hamilton theorem, Jordan form; matrix functions; stability, controllability, observability, realizability, and minimality. Stabilization design via state feedback and observers; separation principle. Connections with transfer function techniques. Letter grading.

M240C. Optimal Control. (4) (Same as Chemical Engineering M280C and Mechanical and Aerospace Engineering M270C.) Lecture, four hours; outside study, eight hours. Requisite: course 240B. Applications of variational methods, Pontryagin maximum principle, Hamilton/Jacobi/Bellman equation (dynamic programming) to optimal control of dynamic systems modeled by linear or nonlinear ordinary differential equations. Letter grading.


243A. Neural Signal Processing. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: course 131A, Mathematics 33A. Topics include fundamental properties of electrical activity in neurons; techniques for mapping neural activity; spiking statistics and Poisson processes; generative models and classification; regression and Kalman filtering; principal components analysis, factor analysis, and expectation-maximization. Concurrently scheduled with course C143A. Letter grading.

246. Foundations of Statistical Machine Learning. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 131A, Mathematics 33A. Introduction to foundations of statistical machine learning. Overview of several widely used learning algorithms including logistic and linear regression, kernel methods and support vector machines, ensemble learning, decision trees and nearest neighbor classifiers. Connections to information theory through probably approximately correct (PAC) learning, stability, bias-complexity trade-
off, structural risk minimization, minimum description length (MDL), and universal learning. Introduction to representation learning with topics including unsupervised learning (linear/non-linear) dimensionality reduction, sketching, parametric distribution estimation including Gaussian mixtures, expectation maximization, non-parametric distribution estimation, property testing and neural networks focused on generative adversarial networks (GANs). Generative adversarial networks (GANs). Discussion of reinforcement learning. Letter grading.

C247. Neural Networks and Deep Learning. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 131A, 133A or 205A, and M146, or equivalent. Review of machine learning concepts; maximum likelihood; supervised classification; neural network architectures; backpropagation; regularization for training neural networks; optimization for training neural networks; convolutional neural networks; practical CNN architectures; deep learning libraries in Python; recurrent neural networks, backpropagation through time, long short-term memory and gated recurrent units; variational autoencoders; generative adversarial networks; adversarial examples and training. Concurrently scheduled with course C147. Letter grading.

M248S. Seminar: Systems, Dynamics, and Control Topics. (2) (Same as Chemical Engineering M237 and Mechanical and Aerospace Engineering M299A) Seminar, two hours; outside study, six hours. Limited to graduate engineering students. Presentations of research topics by leading academic researchers from fields of systems, dynamics, and control. Students who work in these fields present their papers and results. S/U grading.

M250B. Microelectromechanical Systems (MEMS) Fabrication. (4) (Same as Bioengineering M250B and Mechanical Engineering M260B) Lecture, four hours; discussion, three hours; discussion, one hour; outside study, eight hours. Enforced requisite: course M153. Advanced discussion of micromachining processes used to construct MEMS of many aspects: deposition, etching, and processing, as well as their combination in process integration. Materials issues such as chemical resistance, corrosion, mechanical properties, and residual/intrinsic stress. Letter grading.

M252. Microelectromechanical Systems (MEMS) Device Physics and Design. (4) (Same as Bioengineering M252 and Mechanical and Aerospace Engineering M252B) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course M250B. Design of MEMS. Design methods, design rules, sensing and actuation mechanisms, microsensors, and microactuators. Designing MEMS to be produced with both foundry and micromachining techniques. Overview of MEMS design for MEMS. Design project required. Letter grading.

M255. Neuroengineering. (4) (Same as Bioengineering M256 and Neuroscience M256B) Lecture, four hours; laboratory, three hours; outside study, five hours. Requisites: Mathematics 32A, Physics 1B or SC. Introduction to principles and technologies of bioelectricity and neural signal recording, processing, and stimulation. Includes bioelectricity, electrophysiology (action potentials, local field potentials, EEG, ECOG), intracellular and extracellular recording, microelectrode technology, neural signal processing (neural signal filtering, spike detection, spike detection, spike sorting, stimulation artifact removal), brain-computer interfaces, deep-brain stimulation, and prosthetics. Letter grading.

M256A-M256B-M256C. Evaluation of Research Literature in Neuroengineering. (2-2-2) (Same as Bioengineering M256A-M256B-M256C and Neuroscience M252A-M252B-M252C) Discussion; two hours; outside study, eight hours. Introduction to fundamentals of nanoscale science and technology. Basic physical principles, quantum mechanics, chemical bonding and nanostructures, top-down and bottom-up (self-assembly) fabrication; nanocharacterization; nanomaterials, nanoelectronics, and nanobiotechnology. Introduc- tion to new knowledge and techniques in nano areas to understand and inspire students to create new ideas in multidisciplinary nano areas. Letter grading.


266. Computational Methods for Electromagnetics. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: courses 162A, 163A. Computational techniques for partial differential and integral equations: finite-difference, finite-element, method of moments. Applications include transmis- sion lines, resonators, integrated circuits, solid-state device modeling, electromagnetic scattering, and an- tenna Letter grading.


274. Optical Communication and Sensing Design. (4) Lecture, three hours; outside study, nine hours. Requisites: courses 170A and 170B or equivalent. Top-down introduction to physical layer design in fiber optic communication systems, including modulation, demodulation, and computer-aided design. Architectural-level design of fiber optic transceiver circuits, including preamplifier, quantizer, clock and data recovery, laser driver, and predistortion circuits. Letter grading.

M275. Micro- and Nanoscale Biosensing for Molecu- lar Diagnostics. (4) (Same as Bioengineering M273.) Lecture, four hours; discussion, one hour; outside study, seven hours. Covers state-of-the-art and emerging biosensors in context of molecular diagnostics. Stu- dents learn relevant biology and biochemistry pertinent to molecular diagnostics. Students gain thorough understanding of biochemical engineering, bio- fluids, and electronics. Topics include biosensor performance parameters, modes of detection, sample preparation challenges, microfluidics, and emerging wearable biosensing platforms, as well as proteomics, genomics, and DNA sequencing technologies. Letter grading.

279AS. Special Topics in Physical and Wave Elec- tronics. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Covers state-of-the-art and emerging biosensors in context of molecular diagnostics. Stu- dents learn relevant biology and biochemistry pertinent to molecular diagnostics. Students gain thorough understanding of biochemical engineering, bio- fluids, and electronics. Topics include biosensor performance parameters, modes of detection, sample preparation challenges, microfluidics, and emerging wearable biosensing platforms, as well as proteomics, genomics, and DNA sequencing technologies. Letter grading.

279BS. Seminar: Physical and Wave Electronics. (2 to 4) Seminar, two to four hours; outside study, four to eight hours. Seminars and discussions on current and advanced topics in one or more aspects of physical and wave electronics, such as electromagnetic, microwave and millimeter wave circuits, photonics and optoelectronics, plasma electronics, microelectromechanical systems, solid state and nanotechnology. May be repeated for credit with topic change. S/U or letter grading.


CM252. Science, Technology, and Public Policy. (4) (Same as Public Policy CM252) Lecture, three hours. Recent and continuing advances in science and technol- ogy issues. Consideration of selection of critical policy is- sues, each of which has substantial ethical, social, eco- nomic, political, scientific, and technological as- pects. Concurrently scheduled with course CM182. Letter grading.

CM282. Science, Technology, and Public Policy. (4) (Same as Public Policy CM282) Lecture, three hours. Recent and continuing advances in science and technol- ogy issues. Consideration of selection of critical policy is- sues, each of which has substantial ethical, social, eco- nomic, political, scientific, and technological as- pects. Concurrently scheduled with course CM182. Letter grading.

285A. Plasma Waves and Instabilities. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 101A, and M185 or Physics M122. Wave phe-

285B. Advanced Plasma Waves and Instabilities. (4) Lecture, four hours; outside study, eight hours. Recent topics: courses M185, and 285A or Physics 222A. Interaction of intense electromagnetic waves with plasmas: waves in inhomogeneous and bounded plasmas, coupling and damping, magnetic metric instabilities, anomalously resistivity, shock waves, echoes, laser heating. Emphasis on experimental considerations and techniques. Letter grading.

285S. Seminar: Engineering Graduate Education. (3) Seminar, 90 minutes; outside study, 90 minutes. Limited to graduate electrical engineering students. Petition forms to request enrollment. May be repeated for credit. S/U grading.

M237B. Seminar: Process Systems Engineering. (2) (Same as Management M237B.) Seminar, four hours; outside study, four hours. Introduction to intellectual property (IP) in context of technology products and markets. Topics include best practices in putting in place before product development starts, how to develop high-value patent portfolios, patent licensing, offensive and defensive IP litigation considerations, trade secrets, opportunities and pitfalls of open source software, trademarks, managing copyright in increasingly complex content ecosystems, and adopting IP strategies to globalized marketplace. Includes case studies inspired by complex IP questions facing technology companies today. S/U or letter grading.

295. Intellectual Property for Technology Entrepreneurs and Managers. (2) (Same as Management M247.) Seminar, two hours; outside study, four hours. Introduction to intellectual property (IP) in context of technology products and markets. Topics include best practices in putting in place before product development starts, how to develop high-value patent portfolios, patent licensing, offensive and defensive IP litigation considerations, trade secrets, opportunities and pitfalls of open source software, trademarks, managing copyright in increasingly complex content ecosystems, and adopting IP strategies to globalized marketplace. Includes case studies inspired by complex IP questions facing technology companies today. S/U or letter grading.

295A. Preparation for MS Comprehensive Examination. (2 to 12) Tutorial, to be arranged. Limited to graduate electrical engineering students. Reading and preparation for MS comprehensive examination. S/U grading.

297A. Preparation for PhD Preliminary Examinations. (2 to 16) Tutorial, to be arranged. Limited to graduate electrical engineering students. Reading and preparation for PhD preliminary examination. S/U grading.

297C. Preparation for PhD Oral Qualifying Examination. (2 to 16) Tutorial, to be arranged. Limited to graduate electrical engineering students. Preparation for oral qualifying examination, including preliminary research on dissertation. S/U grading.

597A. Preparation for and Presentation of MS Thesis. (2 to 12) Tutorial, to be arranged. Limited to graduate electrical engineering students. Supervised independent research for oral presentation. S/U or letter grading.

597B. Preparation for PhD Preliminary Examinations. (2 to 16) Tutorial, to be arranged. Limited to graduate electrical engineering students. Reading and preparation for PhD comprehensive examination. S/U grading.

597C. Preparation for PhD Oral Qualifying Examination. (2 to 16) Tutorial, to be arranged. Limited to graduate electrical engineering students. Preparation for oral qualifying examination, including preliminary research on dissertation. S/U grading.

Research for and Preparation of MS Thesis. (2 to 12) Tutorial, to be arranged. Limited to graduate electrical engineering students. Usually taken after students have been advanced to candidacy. S/U grading.

Research for and Preparation of PhD Dissertation. (2 to 14) Tutorial, to be arranged. Limited to graduate electrical engineering students. Usually taken after students have been advanced to candidacy. S/U grading.

For details on the Department of Emergency Medicine and courses offered, see the department website.

Emergency Medicine faculty information is available from the department.

ENGINEERING

SCHOOLWIDE PROGRAMS

Henry Samueli School of Engineering and Applied Science

6426 Boelter Hall
Box 951601
Los Angeles, CA 90095-1601

Engineering Schoolwide Programs

310-825-9580

Overview

The Henry Samueli School of Engineering and Applied Science offers several schoolwide graduate degree programs.

Graduate Study

The Samueli School offers the Master of Engineering (MEng) degree, Master of Science (MS) online degree in Engineering, and Engineer (Eng) degree as schoolwide degrees. The following area-specific online degrees have also been established: MS in Engineering–Aerospace, MS in Engineering–Computer Networking, MS in Engineering–Electrical, MS in Engineering–Electronic Materials, MS in Engineering–Integrating Circuits, MS in Engineering–Manufacturing and Design, MS in Engineering–Materials Science, MS in Engineering–Mechanical, MS in Engineering–Signal Processing and Communication, and MS in Engineering–Structural Materials.

A certificate of specialization is available in all areas of specialization.

Graduate Majors

Engineering Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available on the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Master of Engineering Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available on the Graduate Education website. In many cases, more de-
Engineering MS

Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available on the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Engineering—Aerospace MS

Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available on the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Engineering—Computer Networking MS

Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available on the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Engineering—Electrical MS

Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available on the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Engineering—Electronic Materials MS

Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available on the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Engineering—Integrated Circuits MS

Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available on the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Engineering—Manufacturing and Design MS

Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available on the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Engineering—Materials Science MS

Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available on the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Engineering—Mechanical MS

Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available on the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Engineering—Signal Processing and Communication MS

Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available on the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Engineering—Structural Materials MS

Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available on the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Engineering Lower-Division Courses

2. Technology and Society. (2) Lecture, two hours; discussion, one hour; outside study, three hours. Introduction to the role of technology in society. Letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

20. First-Year Engineering Transition Bridge. (2) Seminar, 18 hours (two weeks). Designed primarily for new students to help them understand UCLA, its culture, structure (quarter system), and academic policies; and to facilitate their transition from high school to college. Examination of research on first-year experience of college students, studying at UCLA versus high school, policies and procedures, and campus resources. Advanced preparation and early exposure to fall quarter mathematics, chemistry, and computer science curricula. Collaborative learning techniques and community-building activities are integral processes to both day and evening programs. Intensive classroom instruction and collaborative learning workshops. May be repeated for credit. Offered in summer only. P/NP grading.

21. Computing Immersion Summer Experience. (2) Seminar, 18 hours (three weeks). Designed primarily for new students to help them understand UCLA, its culture, structure (quarter system), and academic policies; and to facilitate their transition from high school/community college to university. Designed to immerse incoming computing students in foundation concepts and principles of computer science, with focus on fundamental computer programming principles, methodologies, and techniques. Basic concepts of programming and C++ computing language. Offered in summer only. P/NP grading.

22. Summer Bridge Review for Enhancing Engineering Students. (2) Seminar, 18 hours (two weeks). Designed primarily for new students to help them understand UCLA, its culture, structure (quarter system), and academic policies; and to facilitate their transition from community college to university. Intensive introduction of advanced topics covered in upper-division engineering courses. May be repeated for credit. Offered in summer only. P/NP grading.

23. Finding Industry Internship. (2) Seminar, two hours; outside study, four hours. Designed to engage engineering students in process of formal career development. Students learn about various components of internship/job application and practice preparing relevant materials. Prepares students for career-related social interactions. Development of skills and insights to successfully secure future opportunities, such as first industry internship. P/NP grading.
24. Finding Undergraduate Research Opportunity. (2) Seminar, two hours; outside study, four hours. Designed to engage engineering students, primarily those with one or more hours of technical experience, in ongoing research, securing, and beginning research. Students learn about various methods and resources used to obtain laboratory position. Exploration of opportunities and guidance on how to approach those openings. Offers students a smooth transition into research laboratory. P/NP grading.

25. Communicating Undergraduate Research Results. (2) Seminar, two hours; outside study, four hours. Designed to engage students in the process of communicating formal research. Students learn about various components required in publishing research. Offers templates and examples as guides for undergraduate research presentations and writing. Development of skills and insights to successfully publish first research project. P/NP grading.

26. Finding Entry-Level Job. (2) Seminar, two hours; discussion, two hours; outside study, two hours. Designed to engage engineering students in process of getting ready to graduate and need help joining workforce. Focus on how to apply to entry-level positions in engineering field, and specifically industries that value engineering experience. Hands-on technical experience required. Offers suggestions to overcome typical barriers students encounter in securing entry-level position including students with no industry internships, lack of professional experience, low grade-point average, lack of student organization extracurricular activities, international students, Deferred Action for Childhood Arrivals (DACA) status, and students in need of plans for movement from laboratory to industry. Offered pass/no credit. P/NP grading.

87. Introduction to Engineering Disciplines. (4) Lecture, one hour; laboratory, one hour; outside study, three hours. Introduction to the engineering field, and specifically industries that value engineering experience. Hands-on technical experience, low grade-point average, lack of student organization extracurricular activities, international students, Deferred Action for Childhood Arrivals (DACA) status, and students in need of plans for movement from laboratory to industry. Offered pass/no credit. P/NP grading.

Upper-Division Courses

102. Synthetic Biosystems and Nanosystems Design. (4) Lecture, four hours; outside study, eight hours. Requires: course M101, Life Sciences 3. Introduction to current progress in engineering to integrate biosciences and nanosciences into synthetic systems, where biological components are reengineered and rewired to perform desirable functions in bioengineering, materials science, and medicine. Topics include basic technologies and systems analysis that deal with dynamic behavior, noise, and uncertainties. Design project in which students are challenged to develop novel biosystems and nanosystems for non trivial task required. Letter grading.

M103. Environmental Nanotechnology: Implications and Applications. (4) (Same as Civil Engineering M103) Lecture, four hours; discussion, one hour; outside study, six hours. Recommended requisite: course M101. Introduction to potential implications of nanotechnology to environmental systems as well as potential application of nanotechnology to environmental protection. Technical content includes three multidisciplinary areas: (1) physical, chemical, and biological properties of nanomaterials, (2) transport, reactivity, and toxicity of nanomaterials in environmental systems, and (3) use of nanotechnology for energy and water production, plus environmental protection, monitoring, and remediation. Letter grading.

110. Introduction to Technology Management and Economics for Engineers. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Fundamental principles of micro-level (individual, firm, and industry) and macro-level (government, international) economics as they relate to technology management. How individuals, firms, and governments impact successful commercialization of high technology products and services. Letter grading.

111. Introduction to Finance and Marketing for Engineers. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Critical components of finance and marketing research and practice as they impact management of technology commercialization. Internal (within firm) and external (in marketplace) marketing and financing of high-technology innovation. Concepts include present value, future value, discounted cash flow, internal rate of return, asset appreciation, market value, return on assets, return on equity, return on investment, interest rates, cost of capital, and product, price, positioning, and promotion. Use of market research, segmentation, and forecasting in management of technological innovation. Letter grading.

112. Laboratory to Market, Entrepreneurship for Engineers. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Critical components of entrepreneurship, finance, marketing, human resource, and accounting disciplines as they impact management of technology commercialization. Topics include human resource, capital, technology, management, team building, marketing, and financial management. Students work in small teams studying technology management plans to bring new technologies to market. Topics include intellectual property, management, team building, market forecasting, and entrepreneurial finance. Students work in small teams studying technology management plans to bring new technologies to market. Topics include intellectual property, management, team building, market forecasting, and entrepreneurial finance. Students work in small teams studying technology management plans to bring new technologies to market.
182EW. Technology and Law. (4) Lecture, four hours; discussion, three hours; outside study, five hours. Requisite: English Composition 3, 3D, 3X, or 3SL. Not open for credit to students with credit for course 181EW, 183EW, 185EW, or 188EW. Places engineering in broader societal context through examination of some of key ethical, legal, and regulatory issues. Contemporary, diverse areas covered, including intellectual property, data privacy, and employment of emerging technology products and services. Historical examination of ethical and legal frameworks generally and in relation to technology. Exploration of societal and ethical perspectives and related topics to examine their broader ramifications. Topics may include driverless cars, algorithms and artificial intelligence, social media, digital privacy, and impact of technology on employment. Offers students tools for enabling them to think more proactively and holistically about ethical and societal dimensions of their work as technology creators. Satisfies engineering writing requirement. Letter grading.

183EW. Engineering and Society. (4) Lecture, four hours; discussion, three hours; outside study, five hours. Enforced requisite: English Composition 3, 3D, 3S, 3E, or 3SL. Not open for credit to students with credit for course 181EW, 182EW, 185EW, or 188EW. Limited to sophomores/junior/senior engineering students. Professional and ethical considerations in practice of engineering. Impact of technology on society and development of moral and ethical values. Contemporary environmental, biological, legal, and other issues created by new technologies. Emphasis on research and writing within engineering environments. Writing and revision of a research paper, including two individual technical essays and one team-written research report. Readings address technical issues and writing form. Satisfies engineering writing requirement. Letter grading.

185EW. Art of Engineering Endeavors. (4) Lecture, four hours; discussion, three hours; outside study, five hours. Enforced requisite: English Composition 3, 3D, 3S, 3E, or 3SL. Not open for credit to students with credit for course 181EW, 182EW, 183EW, or 188EW. Designed for junior/senior engineering students. Non-technical skills and experiences necessary for engineering career success with strong emphasis on group dynamics in engineering practice. Teamwork and effective group skills in engineering environments. Organization and control of multidisciplinary complex engineering projects with leadership and qualities and characteristics of effective leaders. How engineering, computer sciences, and technology relate to major ethical and social issues. Societal demands on practice of engineering. Emphasis on research and writing in engineering environments. Satisfies engineering writing requirement. Letter grading.

188. Special Courses in Engineering. (4) Seminar, four hours; discussion, four hours; outside study, six hours. Requisite: course 201. Designed for graduate students. Practical review of major elements of system engineering process. Coverage of key elements: system requirements and flow down, product development cycle, functional analysis, system synthesis and trade studies, budget allocations, risk management, stakeholder analysis, milestone schedules, and success measurement. Also offers opportunity for graduate students window into excitement of graduate student research experience. Also offers opportunity for graduate students to learn about what their peers are doing. P/NP grading.

191. Seminar Series in Engineering Research. (1) Seminar, one hour. Seminar series in cutting-edge engineering research at UCLA. Each seminar is given by UCLA graduate student researcher or post-doctoral scholar. Designed to be accessible to undergraduate students in any science, technology, engineering, and mathematics (STEM) major. Offers undergraduate students window into excitement of graduate student research experience. Also offers opportunity for graduate students to learn about what their peers are doing. P/NP grading.

192. Fundamentals of Engineering Mentorship. (2) Seminar, two hours; outside study, four hours. Requisite: satisfactory performance in prerequisites and practical and theoretical techniques for instruction of hands-on engineering design projects. Curriculum planning, project preparation, classroom management, team dynamics, and isolations and parts obsolescence. Discussion of nature of these issues; their ethical, legal, and social ramifications; and what society values in relation to these issues. Writing and revision of about 20 pages total, including two essays and one analysis of a negotiation from an ethical perspective. Satisfies engineering writing requirement. Letter grading.

195. Internship Studies in Engineering. (1 to 4) Tutorial, one hour. Limited to juniors/seniors. Internship study course supervised by associate dean or designee. May be repeated for credit with topic or instructor change. P/NP grading.

199. Directed Research in Engineering. (2 to 8) Seminar, one to two hours; outside study, four to eight hours. Requisite: satisfactory performance in prerequisites and application for approval. May be repeated for credit with school approval. Individual contract required; enrollment petitions available in Office of Academic and Student Affairs. Letter grading.

Graduate Courses

200. Program Management Principles for Engineers and Professionals. (4) Lecture, four hours; outside study, eight hours. Designed for graduate students. Practical review of necessary processes and procedures to successfully manage technology programs. Review of fundamentals of program planning, organizational structure, implementation, and performance measurement. Discussion of methodology with necessary information to support decision-making process that provides high-quality products on time and within budget. Letter grading.

201. Systems Engineering (4) Lecture, four hours; outside study, eight hours. Designed for graduate students. Practical review of major elements of system engineering process. Coverage of key elements: system requirements and flow down, product development cycle, functional analysis, system synthesis and trade studies, budget allocations, risk management, review and audit activities and documentation. Letter grading.

202. Reliability, Maintainability, and Supportability. (4) Lecture; four hours; outside study; eight hours. Requisite: course 201. Designed for graduate students with one to two years work experience. Interdisciplinary course covering the system life-cycle cost and one key element of system engineering activities. Overview of engineering disciplines critical to this function—reliability, maintainability, and supportability—and how they are related using probability theory. Topics also include fault detections and isolations and parts obsolescence. Discussion of 6-sigma process, one effective design and manufacturing strategy to ensure system reliability, maintainability, and supportability. Letter grading.

203. System Architecture. (4) Lecture; four hours; outside study; eight hours. Requisite: course 201. Designed for graduate students with BS degrees in engineering or science and one to two years work experience in selected domain. Art and science of architectural methodology—paradigm and tools. Principles of architectural through analysis of architecture designs of major existing sys-
tems. Discussion of selected elements of architectural practices, such as representation models, design processes, and architecture frameworks. Examination of professionalization of system architecting. Letter grading.

204. Trusted Systems Engineering. (4) Lecture, four hours; outside study, eight hours. Trust is placed in information systems to behave properly, but cyber threats and breaches have become routine, outpacing the penetration of financial, medical, government, and national security systems. To build systems that can protect confidentiality, integrity, and availability involves more than merely applying security principles. Students learn about computer security, data security, cryptography, etc. One can use most secure components, and resulting system could still be vulnerable. Skills learned ensure that systems are architected, designed, implemented, tested, and operated for specific levels of trust. Aspects include assessing vulnerability and risk for systems, establishing protection principles, and using them in projects.

205. Model-Based Systems Engineering. (4) Lecture; four hours; outside study, eight hours. Model-based systems engineering (MBSE) and systems modeling language (SysML) taught through lectures and real-world projects, and one independent project. Lectures and readings to provide students with conceptual framework and vocabulary. Individual projects enable students to develop basic skills for creating SysML requirements and structural and behavioral diagrams. In group project students learn how to package, compartmentalize, and integrate smaller efforts while being constrained to meet schedules. Industry-recognized credentials may be obtained, as course covers Object Management Group (OMG) Certified Systems Modeling Professional (OCSMP) tests, such as Model User and Model Builder Fundamentals and Modeler. Letter grading.

206. Engineering for Systems Assurance. (4) Lecture, four hours; outside study, eight hours. Recommended requisites: course 204, Computer Science 236. Systems are constructed to perform complex functions and services. How to understand needs of users, analysis of requirements and derived requirements, creation of various system architecture products, and design and integration of various components into systems that perform these functions and services. System assurance addresses confidence that systems meet specified operational requirements based on their design and by applying assurance techniques. Introduction, investigation, and analysis of framework of assurance to accomplish total system assurance. Development of secure, reliable, and dependable systems from commercial resources such as air traffic control, Supervisory Control and Data Acquisition (SCADA), and autonomous vehicles to military realm such as command, control, communication, intelligence, and cyber. Letter grading.

210. Operations and Supply Chain Management. (4) Lecture, four hours; outside study, eight hours. Introduction to strategic and operating issues and decisions involved in managing enterprises. Operational processes transform resources that enter the system as inputs into goods and utilizes them to provide service, or does both. Conceptual framework and set of analytical tools provide to enable students to better understand why processes behave as they do. Given this understanding, students are able to involve themselves in organization's defining strategic decisions, those related to key processes affecting organizational unit's goal achievement. Letter grading.

211. Financial Management. (4) Lecture, four hours; outside study, eight hours. Introduction to concepts reflecting material generally covered in certain MBA core accounting courses. The integration of both theories and principles to introduce essential conceptual building blocks in accounting and finance—and empirical practice—to emphasize how these theories are actually implemented in real world. Cases, comprehensive problems, and recent events presented to provide students with as much hands-on experience in applying material presented as possible. Letter grading.

212. Intellectual Property Law and Strategy. (4) Lecture, four hours; outside study, eight hours. Poor knowledge of legal doctrines or materials not required. Intellectual property law is not just topic for lawyers. Engineers who have design responsibilities must understand why processes behave as they do. Given this understanding, students are able to involve themselves in organization's defining strategic decisions, those related to key processes affecting organizational unit's goal achievement. Letter grading.

213. Data and Business Analytics. (4) Lecture, four hours; outside study, eight hours. Coverage of wide variety of spreadsheet models that can be used to solve business and engineering problems, with emphasis on mastering Excel as integral part of analytic decision making. Managerial models include data modeling, regression and forecasting, linear programming, network and distribution models. Problem solving, Monte Carlo simulation. Problems from operations, finance, and marketing taught by spreadsheet examples and describe general managerial situations from various industries and disciplines. Development of spreadsheet models to facilitate decision making. Letter grading.

214. Management Communication. (4) Lecture, four hours. Exploration of knowledge, attributes, skills, and strategies necessary to succeed communically in workplace, with focus on business presentation skills, visual and verbal persuasion skills, and interpersonal communication in work environment. Letter grading.

215. Entrepreneurship for Engineers. (4) Lecture, four hours; outside study, eight hours. Limited to graduates in engineering. Topics in starting and developing high-tech enterprises and intended for students who wish to complement their technical education with introduction to entrepreneurship. Letter grading.

299. Capstone Project. (4) Activity, 10 hours. Preparation: completion of minimum of four 200-level courses in core area of interest. Project course that satisfies UCLA final comprehensive examination requirement of MS degree in Engineering. Project is completed under individual guidance from UCLA Engineering faculty advisor. Project also serves as laboratory in organization of goal-oriented technical group. In Progress M473A and S/U or letter grading. (Same as English Composition M495I.)

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: appointment for those engineering students who wish to become regular teachers in class. Preparation and one half hours. Limited to Engineering Executive Program students. Letter grading.

472A-472D. Engineer in Business Environment. (3–3–1.5) Lecture, three hours (courses 472A, 472B, 472C) and 90 minutes (course 472D). Limited to Engineering Executive Program students. Introduction to core topics of executive management, economics, human relations, laws, social sciences, humanities, and fine arts on development and utilization of natural and human resources. Interaction of technology and society past, present, future, and resistance to change. S/U or letter (471A) grading; In Progress (471B) and S/U or letter (471C) grading.

473A-473B. Analysis and Synthesis of Large-Scale System. (3–3) Lecture, two and one half hours; outside study, six hours. Limited to Engineering Executive Program students. Letter grading.

495I. Teaching Preparation Seminar: Writing for Engineers. (4) (Same as English Composition M495I.) Seminar, on and one half hours; outside study, eight hours. Preparation: appointment as teaching assistant. Limited to graduate engineering students. Seminar on communication of engineering principles, concepts, and methods, preparation, organization of material, presentation, use of visual aids, grading, advising, and classroom management. Letter grading.

M495S. Teaching Preparation Seminar: Writing for Engineering Students. (2) (Same as English Composition M495S.) Seminar, one and one half hours; outside study, eight hours. Preparation: appointment as teaching assistant. Limited to graduate engineering students. Seminar on communication of engineering principles, concepts, and methods, preparation, organization of material, presentation, use of visual aids, grading, advising, and classroom management. Letter grading.
Faculty Roster

Professors
Blake Allmendinger, PhD
Ali Behdad, PhD (John Charles Hillis Professor of Literature)
Adam F. Bradley, PhD
Joseph E. Bristow, PhD
Christine N. Chism, PhD
Michael J. Colacurcio, PhD
George R. Guffey, PhD
Christopher W. Grose, PhD
James E. Goodwin, PhD
Robert A. Georges, PhD
Lowell Gallagher, PhD
Patrick K. Ford, PhD
King-Kok Cheung, PhD
Albert R. Braunmuller, PhD
Calvin B. Bedient, PhD
Charles L. Batten, Jr., PhD
Teresa A. Beddard, PhD
Professors Emeriti
Blake Allmendinger, PhD
Ali Behdad, PhD (John Charles Hillis Professor of Literature)
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Lowell Gallagher, PhD
Patrick K. Ford, PhD
King-Kok Cheung, PhD
Albert R. Braunmuller, PhD
Calvin B. Bedient, PhD
Charles L. Batten, Jr., PhD

Undergraduate Study

The department offers Bachelor of Arts (BA) degrees in English and in American Literature and Culture. When selecting courses to fulfill requirements for the majors, students are expected to choose those courses that best reflect their own interests and simultaneously contribute toward a coherent program in literary studies.

Undergraduate Policies

Students must have completed the Entry-Level Writing requirement before taking any courses in English (other than English Composition 1 or 2). For more information, see Entry-Level Writing in Undergraduate Study.

Graduate Study

A graduate program leading to the Master of Arts (MA) degree is available for students who wish to continue the study of literature at an advanced level. A parallel program continues to the PhD degree. Because the PhD program may require five years or more, it is intended only for qualified students who are seriously committed to advanced literary scholarship and, in some cases, to a career in college or university teaching.

Undergraduate Majors

English BA

Students pursuing the Bachelor of Arts degree in English are expected to meet with the undergraduate counselors and undergraduate faculty advisor to plan and follow a course of study that incorporates their interests and goals with the fulfillment of requirements for the degree.

Capstone Program

The English major is a designated capstone program. Students have the option of completing a capstone seminar or other culminating work that enables them to use knowledge and skills acquired through previous coursework to engage, under the guidance of a faculty member, in literary research or other creative projects that result in a final paper or other product.

Learning Outcomes

The English major has the following learning outcomes:

- Proficiency in a broad knowledge/skill set including research methods, critical thinking, and analytical writing
- Familiarity with basic project material including data from multiple sources
- Familiarity with relevant scholarly and current debates in the field
- Conception and execution of an independent project
- Demonstrated seminar or workshop skills

Overview

The Department of English is dedicated to the study of the literatures and cultures of those parts of the world in which English is a primary language. Although committed to no single method or approach, the department requires a knowledge of British, American, and Anglophone literary history and an engagement with a range of methodological approaches that foster intellectual curiosity and critical thinking and encourage its students to be not only expert readers and writers but engaged and ethical citizens. An understanding and appreciation of literature can furnish lifelong rewards. In addition to offering students such personal benefits, the department seeks to foster critical analysis and lucid writing and to teach them to think about how language and representation function in the world. Such skills are essential to success in a variety of professions for which the major in
• Demonstrated oral and written communication skills
• Demonstrated defense-of-scholarship skills

**Entry to the Major**

**Transfer Students**

Transfer applicants to the English major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one English composition course, one English critical reading and writing course, one year of English literature survey courses, and either (1) level five or equivalent in any one foreign language or (2) level three or equivalent in one foreign language and two additional courses in foreign language or literature in translation.

Refer to the [UCLA transfer admission guide](#) for up-to-date information regarding transfer selection for admission.

**Requirements**

**Preparation for the Major**

**Required:** English Composition 3, English 4W or 4HW or 4WX, 10A, 10B, 10C taken in the stated sequence (each course is a prerequisite for the next course), and either (1) level five or equivalent in any one foreign language or (2) level three or equivalent in one foreign language and two additional courses in foreign language or literature in translation.

The **Major**

**Required:** Ten 4- or 5-unit upper-division English courses, including (1) four historical period courses, one from each of the following four periods: (a) literatures in English to 1500—course 140A through 148 or indicated sections of 149, (b) literatures in English, 1500 to 1700—course 150A through 157, 166A, indicated sections of 159 or 159R, (c) literatures in English, 1700 to 1850—course 160A through 165C, 166B through 168, or indicated sections of 169 or 169R or 176, and (d) literatures in English, 1850 to present—course M101B, M101C, M102A, M102B, M104A through M104D, M105B through M105E, 116B, 130, 131, 164B, 164C, 164D, 167A, 167B, 168, 170A through 174C, 179, or 179R, or indicated sections of 176; (2) three breadth courses, one from each of three of the following four areas: (a) gender, race, ethnicity, disability, and sexuality studies—English 100 through 109, M126, 135, 155, 163C, 165B, 166C, or indicated sections of 119, 139, 149, 159R, 169, 169R, 179, or 179R, (b) imperial, transnational, and postcolonial studies—course M105A through M105D, 106, 112D, 128, 130 through 135, 154, 157, 163B, 164D, 165A, 166A, 166B, 176, or indicated sections of 149, 159, 159R, 169, 169R, 179, or 179R, (c) genre studies, interdisciplinary studies, critical theory—course 111A through 129, 144, 146, 147, 153, 156, 161A, 161B, 161C, 163A, 163C, 164A through 164D, 167A, 167B, 171A through 177, or indicated sections of 149, 159, 159R, 169, 169R, 179, or 179R, and (d) creative writing—courses 136, 137, M138; (3) two elective courses (English 195CE is not applicable); (4) one seminar from course 180 through 184, or M191A through M191E.

Admission to creative writing workshops (courses 136, 137, M138) is by application only.

**Honors Program**

Students must take one theory course from English 120 through 128 no later than winter quarter of the junior year. In spring quarter of the junior year, students must take course 191H. During fall and winter quarters of the senior year, students must take courses 198A and 198B, in which they write a thesis under the direction of a faculty member.

**Policies**

**Preparation for the Major**

A grade of C or better is required in each of English Composition 3, English 4W or 4HW or 4WX, 10A, 10B, 10C. A foreign literature in translation course list is available under Foreign Literature in Translation. Transfer students who have satisfied the College of Letters and Science foreign language requirement at the high-school level through the Interssegmental General Education Transfer Curriculum (IGETC) program may satisfy the departmental requirement with five foreign literature in translation courses. The courses may be taken on a Passed/Not Passed (P/ND) grading basis.

**The Major**

Each course applied toward requirements for the major must be 4 or 5 units and be taken for a letter grade.

**Honors Program**

**Admission**

The honors program is open to majors with a 3.5 departmental and a 3.25 overall grade-point average (GPA). Students with lower GPAs may petition for admission to the program, but these grade-point averages must be achieved before graduation in order to qualify for honors. Students should apply by winter quarter of the junior year. For application forms and more information, contact the departmental counselor.

**Requirements**

The one theory course from English 120 through 128 may fulfill one of three required breadth courses. Course 191H may fulfill one of the two electives for the major. Course 198B may fulfill the second of the two electives for the major.

Students in the creative writing concentration are required to have completed or been accepted into their third workshop in a single genre prior to or concurrent with enrollment in course 191H.

The thesis determines whether highest honors, honors, or no honors are received.

**American Literature and Culture BA**

Students are expected to meet with the under-graduate counselors and undergraduate faculty adviser to plan and follow a course of study that incorporates their interests and goals with the fulfillment of requirements for the degree.

**Capstone Program**

The American Literature and Culture major is a designated capstone program. Students have the option of completing a capstone seminar or other culminating work that enables them to use knowledge and skills acquired through previous coursework to engage, under the guidance of a faculty member, in literary research or other creative projects that result in a final paper or other product.

**Learning Outcomes**

The American Literature and Culture major has the following learning outcomes:

- Proficiency in a broad knowledge/skill set including research methods, critical thinking, and analytical writing
- Familiarity with basic project material including data from multiple sources
- Familiarity with relevant scholarly and current debates in the field
- Conception and execution of an independent project
- Demonstrated seminar or workshop skills
- Demonstrated oral and written communication skills
- Demonstrated defense-of-scholarship skills

**Entry to the Major**

**Transfer Students**

Transfer applicants to the American Literature and Culture major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one English composition course, one English critical reading and writing course, and either (1) level five or equivalent in any one foreign language or (2) level three or equivalent in one foreign language and two additional courses in foreign language or literature in translation.

Refer to the [UCLA transfer admission guide](#) for up-to-date information regarding transfer selection for admission.

**Requirements**

**Preparation for the Major**

**Required:** English Composition 3, English 4W or 4HW or 4WX taken in the stated sequence (English Composition 3 is requisite to any English 4 course), 11, 87, and either (1) level five or equivalent in any one foreign language or (2) level three or equivalent in one foreign language and two additional courses in foreign language or literature in translation.

**The Major**

**Required:** Ten 4- or 5-unit upper-division courses, including (1) seven American literature courses, at least two in the time period before 1848 and two in the time period after 1848, selected from the following three areas with a minimum of two selected from each area: (a) origins—beginnings, events, and trajectories: studying the making of America in its myriad beginnings and manifestations—courses 100, M102A, M104A, 166A, 166B, 166C, 167A, 170A, or, when treating American topics, M101B, 106, 123, 131, 139,
Courses may be taken on a Passed/Not Passed basis. Five foreign literature in translation courses may satisfy the departmental requirement with the Intersegmental General Education Transfer Curriculum (IGETC) program, through the Intersegmental General Education Transfer Curriculum (IGETC) program.

Admission

To enter the minor, students must have an overall grade-point average of 2.0 or better, have completed English 10A with a grade of C or better, and have satisfied the English Composition 3 and Composition 4 requirements. English 10A and English 10B must be taken in residence during the regular academic year (excluding summer sessions) at UCLA. Transfer credit is subject to department approval; consult with the undergraduate counselors before enrolling in any courses for the minor.

Policies

To enter the minor, students must have an overall grade-point average of 2.0 or better, have completed English 10A with a grade of C or better, and have satisfied the English Composition 3 requirement and Composition 4. Students must file a petition to declare the minor by meeting with a student affairs officer in the Undergraduate Counseling Office, 158/160 Kaplan Hall, 310-825-1389. This allows them priority enrollment in many upper-division courses.

The Minor

Required Lower-Division Courses (10 units): English 10A and 10B, with grades of C or better.

Required Upper-Division Courses (25 units): Five courses selected from English 100 through 185 (see course lists 1a, 1b, and 1c under English BA, the major), and one other course in literatures in English written before 1850. Three courses, (3) have completed one upper-division course in poetry writing (English 136A or 136B) or short fiction writing (English 137A or 137B), and (4) submit a brief letter of application, a writing sample (at least 10 pages of prose or 7 to 10 poems), and a PDF copy of their degree audit report.

The thesis determines whether they receive highest honors, honors, or no honors.

Undergraduate Minors

Creative Writing Minor

The creative writing minor allows students to develop the craft of poetry writing or short fiction writing, as well as to explore other and emerging areas of writing practice such as creative nonfiction, screenwriting, playwriting, hybrid genres, and electronic forms. The minor is excellent preparation for those who seek to pursue advanced degrees in writing, as well as for those who seek to pursue careers in writing and the creative industries.

Admission

To enter the minor, students must (1) have an overall grade-point average of 2.0 or better, (2) have completed the required lower-division courses, (3) have completed one upper-division course in poetry writing (English 136A or 136B) or short fiction writing (English 137A or 137B), and (4) submit a brief letter of application, a writing sample (at least 10 pages of prose or 7 to 10 poems), and a PDF copy of their degree audit report.

The Minor

Required Lower-Division Courses (9–10 units): One course selected from English 4HW, 4W, or 4WX; and one additional course selected from English 10C, 11, 20, or 20W.

Required Upper-Division Courses (24–25 units): One course in a core genre selected from English 136A, 136B, 137A, or 137B; one advanced course in the same genre, or one intermediate or advanced course in the other genre, or one creative writing topics course selected from English 136A, 136B, 137A, 137B, or M138; or one or two elective courses selected from Asian American Studies 112C, Chicana/o and Central American Studies CM135, English M101B, M101C, M102B, M104B, M104C, M105D, M136, M136B, M137A, M137B, M138, 170C, 171B, 171C, 172B, 173B, 174A, 174B, 174C, and M191E; and (3) two courses pertaining to American culture offered by other departments from a list of approved courses for the major. Courses 195 and 195CE are not applicable.

Honors Program

Admission

The honors program is open to majors with a 3.5 departmental and a 3.25 overall grade-point average (GPA). Students with lower GPAs may petition for admission to the program, but these grade-point averages must be achieved before graduation in order to qualify for honors. Students should apply by winter quarter of the junior year. For application forms and more information, contact the departmental counselor.

Requirements

The one theory course from English 120 through 128 may fulfill one of three required breadth courses. Course 191H may fulfill one of the two electives for the major. Course 198B may fulfill the second of the two electives for the major.

Students in the creative writing concentration are required to have completed or been accepted into their third workshop in a single genre prior to or concurrent with enrollment in course 191H.

The thesis determines whether they receive highest honors, honors, or no honors.

Policies

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor. At least 15 upper-division units applied toward the minor must be taken in residence during the regular academic year (excluding summer sessions) at UCLA. Transfer credit is subject to department approval; consult with the undergraduate counselors before enrolling in any courses for the minor.

Each minor course must be taken for a letter grade (except elective courses provided only on a Passed/Not Passed (P/NP) basis; no more than 4 units of P/NP coursework may be applied), and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

English Minor

The English minor is designed for students who wish to enhance their major program with the benefits of intensive study of English language and literatures, including a better understanding and appreciation of literatures in English and improvement in critical thinking, reading, and writing skills.

Admission

To enter the minor, students must have an overall grade-point average of 2.0 or better, have completed English 10A with a grade of C or better, and have satisfied the English Composition 3 requirement and Composition 4. Students must file a petition to declare the minor by meeting with a student affairs officer in the Undergraduate Counseling Office, 158/160 Kaplan Hall, 310-825-1389. This allows them priority enrollment in many upper-division courses.

The Minor

Required Lower-Division Courses (10 units): English 10B and 10C, with grades of C or better.

Required Upper-Division Courses (25 units): Five courses selected from English 100 through 191E, including one course in literatures in English written before 1700 (see course lists 1a and 1b under English BA, the major) and one other course in literatures in English written before 1850 (see course lists 1a, 1b, and 1c under English BA, the major).
nor. Successful completion of the minor is indicated on the transcript and diploma.

Literature and the Environment Minor

The Literature and the Environment minor provides students with both a solid foundation for literary interpretation and a superstructure that integrates those skills and perspectives with the questions about the past, present, and future of the biosphere. It is designed for undergraduate students who wish to enhance their major program with intensive study of literature in its relationship to the natural environment, while improving their skills in reading, writing, creative and critical thinking, and analysis of complex situations in an ethical frame. The minor examines how different cultural forms (for example, fiction, journalism, poetry, film, design, and art) represent environmental issues, including biodiversity, animal studies, wilderness, food, urban ecologies, postcolonial ecologies, environmental justice, and climate change.

Admission

To enter the minor, students must be in good academic standing with an overall grade-point average of 2.0 or better and have completed English 4HW, 4W, 4WX, or any Writing II course with a grade of C or better. Students must file a petition to declare the minor by meeting with a student affairs officer in the Undergraduate Counseling Office, 158/160 Kaplan Hall, 310-825-1389. For more information, see the minor website.

The Minor

Required Lower-Division Courses (10 units): English 4W, 4HW, 4WX, or any Writing II course and English M30 (or M30SL), with grades of C or better.

Required Upper-Division Courses (20 to 24 units): (1) English 118E and M118F or one additional 118E course on a different topic or one other English course that has a primary focus on environmental issues to be selected from a list available in the Undergraduate Counseling Office prior to the opening of enrollment each term (students may petition to substitute other courses), (2) one course selected from American Indian Studies C178, Anthropology 133, 168P, Art History 132D, 133E, C145A, Chicana/o and Central American Studies M144, M183, Food Studies M170XP, Geography 130, 136, Honors Consortium 141, 174, Italian 124, Public Policy C115, Russian 122, Urban Planning M120, 121, or CM166 (3) one course selected from Atmospheric and Oceanic Sciences M105, 107, 141, Earth, Planetary, and Space Sciences 101, Ecology and Evolutionary Biology 154, 157, 166, Environment M111, M125, M126, M131, M133, 134, 150, M153, 157, C159, M161, 163, M164, 166, M167, or Environmental Health Sciences 100, (4) one course selected from English 184, 195C, 197, 198A, 198B, or 199 that culminates in a project focused primarily on literature from an ecocritical or other environmentally focused perspective.

Policies

Students may petition to substitute an internship course/independent study/directed research course (195CE, 197, 198, or 199) for an elective course as long as it is clearly and predominantly relevant to the topics covered in the minor and falls within the discipline of the requirement for which it serves as a substitute. No more than one upper-division independent study/directed research course (4 or 5 units) may be applied toward the minor.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor. Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Professional Writing Minor

The Professional Writing minor includes the study and practice of originating, designing, and communicating information and ideas. As a discipline, it is the core for creating, debating, and disseminating knowledge in the 21st-century multicultural economy. The minor enables students to expand their knowledge of the practices of writing in a diverse modern society.

Through courses that understand writing broadly—as encompassing written, oral, visual, and electronic multimodal communication—students in the Professional Writing minor acquire deep intellectual and practical skills needed to perform well as good writers within the professions they choose, or to become professional writers with specific areas of academic expertise. All Writing Programs courses in the minor include a segment on digital media.

Admission

To enter the minor, students must have an overall grade-point average of 2.0 or better, have satisfied the Writing II requirement, and submit a 500-word essay explaining why they want to declare the minor, and how they expect it to relate to their professional lives. Minor applications are submitted on the English Department website. For more information, contact the Writing Programs adviser, 146 Kaplan Hall, 310-206-1145.

The Minor

Required Lower-Division Courses (4-5 units): Any Writing II course or equivalent.

Required Upper-Division Courses (26-30 units): One core course from English Composition 130A through 130E; two courses selected from English 110A, 110C, 110E, 110P, 110V, 110P (or Comparative Literature M191P), 119 (or English Composition M192 or Environment M192), English Composition 131A, 131C, 131D, 132, 133, 134, 136, 137, or English M138 (or English Composition M138) when offered on a nonfiction topic; one course selected from African American Studies M194A (or Education M131A), Asian American Studies C142A, C142B, C142C, Community Engagement and Social Change 163SL, Communication 109, 110, Dance C184, Digital Humanities 150, Ecology and Evolutionary Biology C179, Education 133, Film, Television, and Digital Media C144, Life Sciences 110, M192A, Music Industry 102, 104A, 110, 122, Research Practice 192B; one additional upper-division course selected from the lists above; and one capstone, cumulative portfolio, independent study, or community and corporate internship course from English 195CE, 197, 199, English Composition 195, or 199.

Policies

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor. No more than one lower-division course may be applied to the minor. Students may petition to substitute courses other than those listed to satisfy elective requirements. Each minor course must be taken for a letter grade (unless the course is graded only on a P/NP basis; no more than 4 units of P/NP may be applied to the minor), and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Major

English MA, CPhil, PhD

Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

English

Lower-Division Courses

4HW. Critical Reading and Writing (Honors). (5) Lecture, four hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Introduction to literary analysis, with close reading and carefully written exposition of selections from principal modes of literature: poetry, prose fiction, and drama. Minimum of four papers (three to five pages each) and two in-class essays. Satisfies Writing II requirement. Letter grading.

4W. Critical Reading and Writing. (5) Lecture, four hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Introduction to literary analysis, with close reading and carefully written exposition of selections from principal modes of literature: poetry, prose fiction, and drama. Minimum of 15 to 20 pages of revised writing. Satisfies Writing II requirement. Letter grading.

4WX. Critical Reading and Writing (Community-Engaged Learning). (F) Formerly numbered 4WS.) Lecture, four hours; fieldwork, two hours. Enforced requisite: English Composition 3. Introduction to literary analysis, with close reading and carefully written exposition of selections from principal modes of literature: poetry, prose fiction, and drama. Minimum of 15 to 20 pages of revised writing. Service learning com-
M30SL, Environmental Literature and Culture (Service Learning). (5) Same as Environment M30SL. Lecture, three hours; discussion, one hour; fieldwork, two hours. Enforced requisites: satisfaction of Entry-Level Writing requirement. Introduction to core themes, questions, and methods within interdisciplinary field of environmental humanities. Examination of how different culture forms (e.g., fiction, journalism, poetry, visual art) represent environmental issues. Topics may include biodiversity, wilderness, food, urban ecologies, postcolonial ecologies, environmental justice, and climate change. P/NP or letter grading.

M30, Environmental Literature and Culture. (5) Same as Environment M30. Lecture, three hours; discussion, one hour. Enforced requisites: satisfaction of Entry-Level Writing requirement. Introduction to core themes, questions, and methods within interdisciplinary field of environmental humanities. Examination of how different culture forms (e.g., fiction, journalism, poetry, visual art) represent environmental issues. Topics may include biodiversity, wilderness, food, urban ecologies, postcolonial ecologies, environmental justice, and climate change. P/NP or letter grading.

85. American Novel. (5) Lecture, three hours; discussion, one hour. Enforced requisite: satisfaction of Entry-Level Writing requirement. Not open for credit to English majors or students with credit for any courses 110A or 110B. Development of the American novel from its beginning to present day. Includes works of such novelists as Hawthorne, Fitzgerald, Faulkner, Ellison, and Morrison. P/NP or letter grading.

87. Topics in American Cultures. (5) Seminar, three hours. Requires: English Composition 3, English 4W or 4WS. 11. Content varies. Introductory study of diverse peoples, histories, and ideas of P/NP or letter grading.

88A-88Z. Lower-Division Seminars: Special Topics in English. (5 each) Seminar, three hours. Limited to 15 students. Content varies; see departmental course schedule for prerequisites. P/NP or letter grading.

90. Shakespeare. (5) Lecture, three hours; discussion, one hour. Enforced requisite: satisfaction of Entry-Level Writing requirement. Not open for credit to English majors or students with credit for any courses 110A or 110B. Development of the American novel from its beginning to present day. Includes works of such novelists as Hawthorne, Fitzgerald, Faulkner, Ellison, and Morrison. P/NP or letter grading.

88B. The English Language. (5) Seminar, three hours. Limited to 15 students. Content varies; see departmental course schedule for prerequisites. P/NP or letter grading.

88H. English Literature. (5) Lecture, three hours. Limited to 15 students. Content varies; see departmental course schedule for prerequisites. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. P/NP or letter grading.

89H. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. P/NP or letter grading.

91A. Introduction to Poetry. (5) Lecture, three hours; discussion, one hour. Enforced requisite: satisfaction of Entry-Level Writing requirement. Not open for credit to English majors or students with credit for any courses 110A or 110B. Development of the American novel from its beginning to present day. Includes works of such novelists as Hawthorne, Fitzgerald, Faulkner, Ellison, and Morrison. P/NP or letter grading.

91B. Introduction to Drama. (5) Lecture, three hours; discussion, one hour. Enforced requisite: satisfaction of Entry-Level Writing requirement. Not open for credit to English majors or students with credit for any courses 110A or 110B. Development of the American novel from its beginning to present day. Includes works of such novelists as Hawthorne, Fitzgerald, Faulkner, Ellison, and Morrison. P/NP or letter grading.

95. Shakespearean Drama. (5) Lecture, three hours; discussion, one hour. Enforced requisite: satisfaction of Entry-Level Writing requirement. Not open for credit to English majors or students with credit for any courses 110A or 110B. Development of the American novel from its beginning to present day. Includes works of such novelists as Hawthorne, Fitzgerald, Faulkner, Ellison, and Morrison. P/NP or letter grading.

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to modern drama. Emphasis on critical approaches to dramatic text; study of issues such as plot construction, characterization, special uses of language in drama, methods of evaluation. P/NP or letter grading.

91C. Introduction to Fiction. (5) Lecture, three hours; discussion, one hour. Enforced requisite: satisfaction of Entry-Level Writing requirement. Introduction to prose narrative, its techniques and forms. Analysis of short and long works of critical issues such as plot, characterization, setting, narrative voice, realistic and nonrealistic forms. P/NP or letter grading.

91D. Introduction to Graphic Fiction. (5) Lecture, three hours; discussion, one hour (when scheduled). Enforced requisite: satisfaction of Entry-Level Writing requirement. Introduction to popularly and important cultural work of comic books and graphic novels. Emphasis on how text and image combine to create meaning, including program of appropriateness of comics for serious topics. P/NP or letter grading.

97H. Honors Research Seminar for Freshmen and Sophomores. (4) Seminar, three hours. Enforced requisite: English Composition 3, English 4W (or 4W1). Recommendations for division students who desire familiarity with research methods in literary studies. Areas may include use of archives; locating, reading, and incorporating secondary criticism; critical and textual studies in specific literary field. Specific literatures vary with instructor. May not be repeated for credit. P/NP or letter grading.

99. Student Research Program. (1 to 2) Tutorial supervised research in divisionally. (3) Credit/No Credit. Four hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in a divisional unit (excluding the Queer course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP or letter grading.

Upper-Division Courses

100. Ways of Reading Race. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3, English 4W (or 4W1). Recommended for division students who desire familiarity with research methods in literary studies. Emphasis on diversity of perspectives and styles that have emerged over past 100 years or so. Authors may include Toni Morrison, August Wilson, Octavia Butler, Anna Deavere Smith, June Jordan, Charles Johnson, and Rita Dove. P/NP or letter grading.

M101E. Topics in African American Literature and Cultures. (5) Same as African American Studies M101E.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Introductory survey to African American literature from 1980s to present covering range of genres, with emphasis on diversity of perspectives and styles that have emerged over past 10 years or so. May be repeated. P/NP or letter grading.

M101F. African American Literature and Cultures. (5) Same as African American Studies M101F.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Examination of African American literature from late 19th century to present, with focus on social, cultural, and political aspects of African American life. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M101A. Premodern Queer Literatures and Cultures. (5) Same as Gender Studies M101A and Lesbian, Gay, Bisexual, Transgender, and Queer Studies M101A.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3. Survey of discrete period of queer literature from beginning to circa 1850. Works by such writers as Sappho, Plato, Marlowe, Shakespeare, and Thomas Gray may be included. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M101B. Queer Literatures and Cultures, 1850 to 1970. (5) Same as Gender Studies M101B and Lesbian, Gay, Bisexual, Transgender, and Queer Studies M101B.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3. Survey of discrete period of queer literature and culture from circa 1850 to 1970. Works by such authors as Whitman, Radclyffe Hall, Gertrude Stein, Virginia Woolf, Langston Hughes, Tennessee Williams, and Audre Lorde may be included. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M101C. Queer Literatures and Cultures after 1970. (5) Same as Gender Studies M101C and Lesbian, Gay, Bisexual, Transgender, and Queer Studies M101C.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3. Examination of cultural production, especially literary, cultural, and political works that emerged after Stonewall rebellion in New York in 1969, widely regarded as origins or beginning of modern lesbian and gay rights movement in U.S. Writings and films by such authors as An-
Topics include border, immigration, revolution, lan-
guage, gender, sexuality, and diaspora, among others.
May be repeated for credit with topic or instructor
change. P/N or letter grading.

M105XP. Seminar: Chicana/Chicano and/or Latina/
Latino Literature—Community-Engaged Learning.
(Formerly numbered M105SSL.) (Same as Chica-
na/Chicano and/or American Central Studies M105XP)
Seminar, three or four lectures (or 4W or 4WS),
four hours. Enforced requisite: English Composition
3. Specialized studies in Chicana/Chicano and/or Latino/
Latino literature. In-depth study of various topics re-
lated to Chicano/Latino communities in Southern Cali-
fornia, including Chicana/Chicano visions of Los An-
geles; immigration, migration, and exile; autobiogra-
phy and historical change; Chicana/Chicano journalism
and autobiography. Service-learning component in-
cludes minimum of 20 hours of mean-
ingful work with agency involved with Chicana/Chica-
no and/or Latino/Latino community and selected by
instructor. P/N or letter grading.

106. Studies in Native American and Indigenous Lit-
eratures. (5) Lecture, four hours; discussion, one hour
(when scheduled). Enforced requisite: English Compo-
sition 3 or 3H. Study of Native American and/or trans-
national indigenous experiences and cultural expressions.
Topics may include oral traditions and histories, decol-
onization and sovereignty, identity and place in com-
parative perspectives, and multiple genres and forms
such as novel, poetry, drama, song, dance, and film.
May be repeated for credit with topic or in-
structor change. P/N or letter grading.

107A. Studies in Women’s Writing. (5) (Same as
Gender Studies G108B and Lesbian, Gay, Bisex-
ual, Transgender, and Queer Studies M107B.) Lect-
ure, four hours; discussion, one hour (when sched-
uled). Enforced requisite: English Composition 3.
Ex-
amination of literary and cultural production through
lens of gender and sexuality. Depending on instructor,
emphasize may be historical, regional, national, com-
parative, or thematic and include other intersectional
vectors of identity and representation such as age
and ethnicity. May be repeated for credit with topic or
instructor change. P/N or letter grading.

108. Interracial Encounters. (5) Lecture, four
hours; discussion, one hour (when scheduled).
Enforced requisite: English Composition 3 or 3H.
Consult Schedule of Classes for author, period,
gender, or subject to be studied in specific term.
Depending on instructor, emphasis may be his-
torical, regional, national, comparative, or thematic.
May be repeated for credit with topic or instructor
change. P/N or letter grading.

110A. Writing in English Major: Analytical. (5)
Lecture, four hours; discussion, one hour (when
scheduled). Enforced requisite: English Compo-
sition 3 or 3H. Not open for credit to students with
credit for course 110T. Improvement and refinement of
writing about literature. Focus on writing as process,
rewriting, and argument; minimum 15 to 20 pages
of writing required. May not be repeated for credit.
P/N or letter grading.

110B. Celtic Mythology. (5) Lecture, four hours;
discussion, one hour (when scheduled). Enforced re-
quire: English Composition 3 or 3H. Study of myth, dr-
amatic origins, oral epic, folklore, and ballad. P/N or
letter grading.

110C. Public Readers, Public Writers: Writing about
Books for 21st-Century Audience. (5) Lecture, four
hours. Restricted to staff (or 4W or 4WS), English
Composition 3 or 3D or 3DS or 3SL). In-depth
study and practice of literary and cultural criticism
for general audience. Focus on writing as process, re-
writing, and argument; minimum 15 to 20 pages
of writing. May not be repeated for credit. P/N or letter
grading.

110E. Writing in English Major: Advanced Essay. (5)
Lecture, three or four hours (or 4W or 4WS).
Enforced requisite: Composition 3 or 3H or equivalent.
Limited to American Literature and Culture and
English majors. Writing for professionals. Students
review written mate-
rinals completed in previous English courses and
develop new documents, projects, and writing samples
relevant to success in varied professions including post-
graduate study. Culminates in writing portfolio of
each student’s work. May not be repeated for credit.
P/N or letter grading.

110P. Writing in English Major: Pre-Professional Port-
folio. (5) Seminar, four hours. Requisites: course
4W, English Composition 3 or equivalent. Limited
to American Literature and Culture and English majors.
Writing for professions. Students review written mate-
rinals completed in previous English courses and
develop new documents, projects, and writing samples
relevant to success in varied professions including post-
graduate study. Culminates in writing portfolio of
each student’s work. May not be repeated for credit.
P/N or letter grading.

111A. Hebrew Bible in Translation. (5) Lecture,
four hours; discussion, one hour (when scheduled).
Enforced requisite: English Composition 3 or 3H.
Literary study of Hebrew Bible (Old Testament) with
emphasis on literary devices and narrative structures in
relation to Judaic historical, political, psychological,
philosophical, and theological themes. P/N or letter
grading.

111B. Christian Biblical Texts in Translation. (5)
Lecture, four hours; discussion, one hour (when sched-
uled). Enforced requisite: English Composition 3 or
3H. Literary study of Hebrew Bible and/or New Testa-
ment, with attention to colonial and postcolonial issues
and speculative literatures. P/N or letter grading.

112A. Celtic Folklore. (5) Lecture, four hours; dis-
cussion, one hour (when scheduled). Enforced re-
quire: English Composition 3 or 3H. Folkloric traditions
of modern Ireland, Scotland, and other Celtic coun-
tries, with an examination of colonial and postcoloni-
al issues and folkloristic methods. P/N or letter grade-
ing.

112C. Survey of Medieval Celtic Literature. (5)
Lecture, four hours; discussion, one hour (when sched-
uled). Enforced requisite: English Composition 3 or
3H. Knowledge of Irish or Welsh not required. General
course dealing with Celtic literature from earliest
times to 14th century. P/N or letter grading.

113A. History of English Language. (5) Lecture,
four hours; discussion, one hour (when scheduled).
Enforced requisite: English Composition 3 or 3H. Study
directed toward English majors of main features in
classical, medieval, and speculative literatures of
English language from Indo-European time to present.
P/N or letter grading.

113B. Introduction to Structure of Present-Day En-
glish. (5) Lecture, four hours; discussion, one hour
(when scheduled). Enforced requisite: English Compo-
sition 3 or 3H. Introduction to techniques of linguistic
description as applied to pronunciation, grammar, and
vocabulary of modern English. P/N or letter grading.

114. Lyric Histories. (5) Lecture, four hours; dis-
cussion, one hour (when scheduled). Enforced re-
quire: English Composition 3 or 3H. Study of English
verse with attention to colonial and postcolonial issues
and speculative literatures. P/N or letter grading.

115A. American Popular Literature. (5) Lecture,
four hours; discussion, one hour (when scheduled).
Enforced requisite: English Composition 3 or 3H.
Examination of such popular genres as work of
sentimen-
tal literature, sensation fiction, dime novels, crime
stories, pornography, science fiction, supernatural
tales, Hollywood novels, and other kinds of mass lit-
ery expression. P/N or letter grading.

115B. British Popular Literature. (5) Lecture, four
hours; discussion, one hour (when scheduled). Enforced re-
quire: English Composition 3 or 3H. Readings in litera-
ture of British masses, from 16th-century broadsides
to contemporary novels. Focus on historical and cul-
tural aspects of literature. P/N or letter grading.

115C. Literature for Children and Adolescents. (5)
Lecture, four hours; discussion, one hour (when sched-
uled). Enforced requisite: English Composition 3 or
3H. Study of children’s and young adult literatures,
with attention to colonial and postcolonial issues
and speculative literatures. P/N or letter grading.

115D. Detective Fiction. (5) Lecture, four hours;
discussion, one hour (when scheduled). Enforced re-
quire: English Composition 3 or 3H. Study of British
and American detective fiction and literature of detec-
tion. P/N or letter grading.

115E. Science Fiction. (5) Lecture, four hours; dis-
cussion, one hour (when scheduled). Enforced requisite:
English Composition 3 or 3H. Examination of science
fiction and speculative literatures. P/N or letter grade-
ing.

M115XP. Community-Based Studies of Popular Lit-
erature. (Formerly numbered M115SSL.) (Same as
Community Engagement and Social Change M115XP)
Lecture, four hours; discussion, one hour (when sched-
uled); fieldwork, two hours. Enforced requisite: English
Composition 3. Service-learning course that engages
students in the study and analysis of a broad range of
genres of popular literature, with attention to contem-
porary communities of readers and writers and forma-
tion of civil society. Topics vary and may include chil-
dren’s literature and childhood literacy, mass market
fiction and book club culture, or science fiction and
science policy. Service-learning component includes
meaningful work with local nonprofit organizations se-
tected in advance by instructor. May be repeated for
credit with topic change. P/N or letter grading.
116A. Experimental Fiction. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: English Composition 3 or 3H. Study of novels and short stories by contemporary fiction writers, with emphasis on current practices in language, narrative, hybridity (genre, medium), typography, and other material aspects of text such as binding and book design. Focus generally on texts from 20th century and later, but can include readings from beginning of novel. May be repeated for credit with topic or instructor change. P/NP or letter grading.

116B. Introduction to Electronic Literature. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Overview of literatures involving digital technology, such as hypertext fiction, interactive fiction, animatronic poetry, multimedia video game narrative, and works employing network protocols and print-based works influenced by digital culture. Basic introduction to new media theory. P/NP or letter grading.

117. Literature of California and American West. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Study of literature in English dealing with exploration, settlement, and emergent cultural awareness of Western U.S. P/NP or letter grading.

118A. Interdisciplinary Studies in Literature. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Investigation of literature in relation to other disciplines such as sciences, history, politics, philosophy, music, photography, visual studies, psychology. May be taken with topic or instructor change. P/NP or letter grading.

118B. Literature and Other Arts. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Investigation of literature to one or more other arts, including music (opera, musical theater, popular music, jazz), painting, photography, other visual arts, sculpture and other plastic arts, performance art, dance, architecture. May be repeated for credit with topic or instructor change. P/NP or letter grading.

118C. Studies in Visual Culture. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Study of visual images (photography, film, video) and their relation to literary and/or popular culture. Topics include adaptation, visual equivalent, and image, image and literature, film and visual culture. May be repeated for credit with topic or instructor change. P/NP or letter grading.

118E. Literature and Environment. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Study of literature from environmental perspectives, including ecological and interdisciplinary consideration of issues such as environmental justice, animal studies, food studies, gender studies, urban and postcolonial ecologies, climate change, cultural biophilia and biophobia, and relationship of literature to sciences. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M118F. Food Cultures and Food Politics. (5) (Same as Food Studies M132 and Society and Genetics M132.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Introduction to interdisciplinary field of food studies, with focus on how literature, art, science writing, and visual culture address political dimensions of food and agriculture. May be repeated for credit with P/NP or letter grading.

119. Literary Cities. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Exploration of place of literary imagination in making of cities, with focus on questions of cultural exchange, development, migration, urban rebellion, and style. Topics may include meaning of urban space and time, city as urban laboratory, dystopian and utopian, topia or postmodern future, and impact of exile, tourism, and migration in making of cities. May be repeated for credit with topic or instructor change. P/NP or letter grading.

119XP. Literary Cities—Service Learning. (5) (Formerly numbered 119SL.) Lecture, four hours; discussion, one hour (when scheduled); fieldwork, two hours. Enforced requisite: English Composition 3 or 3H. Experience of place of literary imagination in making of cities, with focus on questions of cultural exchange, development, migration, urban rebellion, and style. Topics may include meaning of urban space and time, city as urban laboratory, dystopian and utopian, topia or postmodern future, and impact of exile, tourism, and migration in making of cities. Service project may be arranged with local nonprofit organizations selected in advance by instructor. May be repeated for credit with topic or instructor change. P/NP or letter grading.

120. History of Aesthetics and Critical Theory. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: courses 10A, 10B. Investigation of texts and ideas in history of aesthetics, critical theory, and interpretation from Greeks through 18th century. Readings may include Gorgias, Plato, Aristotle, Longinus, Biblical hermeneutics, Hume, Descartes, Kant, Schiller, and Hegel. May not be repeated for credit. P/NP or letter grading.

121. Modern and Contemporary Aesthetics and Critical Theory. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, or 11 and 87. Investigation of some dominant trends in both 19th- and 20th-century aesthetics, critical theory, and interpretation from Marxian psychoanalytic, structuralist/poststructuralism, feminism, and postcolonialism. May not be repeated for credit. P/NP or letter grading.

122. Keywords in Theory. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 10A, 10B, and 10C, or 11 and 87. Recommended: courses 120, 121. Taking its model from Raymond Williams’ classic vocabulary of culture and society, investigation of fundamental theoretical concepts, or keywords, that have emerged from a variety of intellectual disciplines to shape literary and cultural studies. May be repeated for credit with topic or instructor change. P/NP or letter grading.

123. Theories of History and Historicism. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 10A, 10B, and 10C, or 11 and 87. Recommended: courses 120, 121. Exploration of histories of theory and historiography that offer productive approaches to literary texts. Investigation of how historians seek to develop concepts of history and situated historical narratives, how histories are constructed, troped, and given authority, how histories constitute past and present in relationship to each other to stabilize tradition or induce change, and complex ways that literary texts operate within and on their historical contexts. May be repeated for credit with topic or instructor change. P/NP or letter grading.

124. Theories of Religion. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 10A, 10B, and 10C, or 11 and 87. Recommended: courses 120, 121. Examination of relationship between literary and religious practices and traditions. Topics may include religious formations, theories of sacrifice, sacrament, gift, and mystical traditions, as well as history of theology and religious approaches to reading. Selected topics may address literary applications of religious categories as treated in cultural anthropology, philosophy, and critical theory. May be repeated for credit with topic or instructor change. P/NP or letter grading.

125. Violence in Cultural Theory and Literature. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Study of literature and culture. Topics may include the relationship between culture and imperialism through lens of literary texts to raise questions about what aspects of empire shape literary and cultural expression, with specific emphasis on regional or thematic concerns. Topics may include literatures of Africa and African diaspora, environment and empire, Central and South America, or literatures of Indigenous Pacific. May be repeated for credit with topic or instructor change. P/NP or letter grading.

126. Feminist and Queer Theory. (5) (Same as Gender Studies M126 and Lesbian, Gay, Bisexual, Transgender, and Queer Studies M126.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Recommended: one course from 120, 121, Gender Studies 102, 103, or 104. Investigation of key concepts and debates in study of gender, sexuality, and kinship, with focus on theories of representation and making of culture. Readings to be interdisciplinary, with possible emphasis on impact of changing ideas of gender and sexuality in specific historical cultural histories. May be repeated for credit with topic or instructor change. P/NP or letter grading.

127. Performance, Media, and Cultural Theory. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C. Recommended: course 120. Exploration of concepts and modes of performance, culture, and/or media, broadly construed. Evaluation of different modes of inquiry around one or more of these concepts, as well as their intersection, in various intellectual traditions, including fields of cultural studies, performance studies, literary analysis, and film theory. May be repeated for credit with topic or instructor change. P/NP or letter grading.

128. Postcolonial and Transnational Theory. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C. Recommended: course 120. Enactment of concepts and modes of transnational and postcolonial approaches to study of literature and culture. Topics may include theorems such as subaltern, orientalism, and/or indigenous representation and histories and may address representational issues of national sovereignty in wake of globalization and neocolonialism. May be repeated for credit with topic or instructor change. P/NP or letter grading.

129. Topics in Genre Studies, Interdisciplinary Studies, and Critical Theory. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C. Recommended: courses 120, 121. Consult Schedule of Classes for author, period, genre, or subject to be studied in specific term. Depending on instructor, emphasis may be historical, regional, national, comparative, or thematic. May be repeated for credit with topic or instructor change. P/NP or letter grading.

130. Introduction to Postcolonial Literatures. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C. Introduction to major themes and issues in postcolonial literature, with focus on contemporary literatures and their historical origins, often involving engaging history of British or other empires with emphasis on Anglophone writers from Africa, Caribbean, South Asia, and indigenous Pacific. May not be repeated for credit. P/NP or letter grading.

131. Studies in Postcolonial Literatures. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C. Strongly recommended: course 130. Survey of how colonialism and decolonization have shaped literary and cultural expression, with specific emphasis on regional or thematic concerns. Topics may include literatures of Africa and African diaspora, environment and empire, Central and South America, or literatures of Indigenous Pacific. May be repeated for credit with P/NP or letter grading.

132. Culture and Imperialism. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, and 10C. May adopt thematic or thematic approach, such as Orientalism. Topics may include construction of gender, race, otherness, nature, religion, and nation. May be repeated for credit with topic or instructor change. P/NP or letter grading.
133. Transatlantic Literatures and Cultures. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 10A, 10B, and 10C, or 11 and 87. Study of literatures of Atlantic to examine cultural, political, and ideological issues that followed from transatlantic movement of people, ideas, commodities, and cultural artifacts. In addition to literatures of Britain and U.S., coverage may include texts from Africa, Caribbean, Mexico, South America, and Spain, and other parts of Europe. May be repeated for credit with topic or instructor change. P/NP or letter grading.

134. Nationalism and Transnationalism. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 10A, 10B, and 10C, or 11 and 87. Examination of how critical frameworks of nation and migration have shaped cultural and political globalization, and the translation and modernity framework analysis of literary texts, particularly relationship between literature and national identity. Other topics include nation building in relationship to regional identities as well as discourses of national expansion, diaspora, resettlement, and exile and foundational narratives of nation in relationship to representations of mobility. Genres may include epic, romance, novel, and biography. May be repeated for credit with topic or instructor change. P/NP or letter grading.

135. Literature of Americas. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A and 11 and 87. Study of literatures of Americas, with emphasis on complex ways in which letters of North America, Central America, South America, and Caribbean forge distinctively American, and the global attention. Study of literature from age of encounter to 19th-century U.S. American revolution and Latin American independence movements and beyond, considering such topics as emigration, colonization, slavery, transnational dynamics, and cross-cultural transformations among indigenous, European, and African civilizations. May be repeated for credit with topic or instructor change. P/NP or letter grading.

136A. Creative Writing: Intermediate Poetry. (5) Seminar, three or four hours. Enforced requisites: courses 4HW or 4W or 20 or 20W, English Composition 3. Not open for credit to students with credit for course 136B. Reading in contemporary poetry and exercises in writing of poetry. Discussion based on assigned reading and on student work. Enrollment in more than one section per term not permitted. May be repeated for maximum of 10 units. P/NP or letter grading.

136B. Creative Writing: Advanced Poetry. (5) Formerly numbered 136.) Seminar, three or four hours. Enforced requisites: courses 4HW or 4W or 20 or 20W, English Composition 3. Further reading in contemporary poetry and exercises in writing of poetry. Some classroom discussion based on assigned reading, but most on student work. Enrollment in more than one section per term not permitted. May be repeated for maximum of 15 units. P/NP or letter grading.

137A. Creative Writing: Intermediate Short Story. (5) Seminar, three or four hours. Enforced requisites: courses 4HW or 4W or 20 or 20W, English Composition 3. Not open for credit to students with credit for course 137B. Reading in contemporary short stories and exercises in short fiction writing. Classroom discussion based on reading and student work. Enrollment in more than one section per term not permitted. May be repeated for maximum of 15 units. P/NP or letter grading.

137B. Creative Writing: Short Story. (5) Formerly numbered 137.) Seminar, three or four hours. Enforced requisites: courses 4HW or 4W or 20 or 20W, English Composition 3. Further reading in contemporary short stories and exercises in fiction writing, with emphasis on longer stories. Some classroom discussion based on assigned reading, but most on student work. Enrollment in more than one section per term not permitted. May be repeated for maximum of 15 units. P/NP or letter grading.

138. English Composition M138.) Seminar, three hours. Requisite: English Composition 3 or 3D or 3DB or SSL. Introduc-tory workshop in genre(s) of instructor choice, that may include mixed genres, playwriting, screenwriting, literary nonfiction, or others. Enrollment in more than one section per term not permitted. May be repeated for maximum of 15 units. May not be used to satisfy workshop requirements for English creative writing concentration. P/NP or letter grading.

139. Individual Authors. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, and 10C, or 11 and 87. Specialized study of work of one single Anglophone poet, dramatist, prose writer, or novelist. May be repeated for credit with topic or instructor change. P/NP or letter grading.

140A. Chaucer: Canterbury Tales. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Introductory study of Chaucer’s language, versification, and historical and literary background, including analysis and discussion of some of his major poems, Canterbury Tales P/NP or letter grading.

140B. Chaucer: Troilus and Criseyde and Selected Minor Works. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Major poetry and prose of early medieval Britain, including epic, romance, history, saints’ lives, and travel and topographical works. May include Beowulf, Vercelli Book, poems on women, Bede, and King Alfred. P/NP or letter grading.

141B. Introduction to Old English Language and Literature. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 10A, 10B. Introductory study of Old English language and literature, including grammar and vocabulary, reading and translation of poetry and prose, and discussion of literatures and cultures of Anglo-Saxon England. P/NP or letter grading.

141C. Topics in Old English. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisite: course 141B. Intensive study of Old English literature in original language. Texts and topics may include Beowulf, Vercelli Book, books of monsters, medical writing, etc. May be repeated for credit with topic or instructor change. P/NP or letter grading.

141R. Early Medieval Literature: Research Component. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Major poetry and prose of early medieval Britain, including epic, romance, saints’ lives, and travel literature. Substantial research component included. May be repeated for credit with topic or instructor change. P/NP or letter grading.

142. Later Medieval Literature. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Reading and historical explication of major writers of later medieval Britain (e.g., Gawain-poet, Langland, Gower, Margery Kempe, Malory, miracle and morality plays, prose, and lyrics). P/NP or letter grading.

142R. Later Medieval Literature: Research Component. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Major poetry and prose of later medieval Britain (e.g., Gawain-poet, Langland, Gower, Margery Kempe, Malory, miracle and morality plays, prose, and lyrics). Substantial research component included. May be repeated for credit with topic or instructor change. P/NP or letter grading.

143. Drama to 1576. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. English drama from its Latin and Anglo-Norman roots to opening of first public playhouse. P/NP or letter grading.

144. Medieval Romance and Literatures of Court. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Major poetry and prose of early medieval Britain, including epic, romance, history, saints’ lives, and travel and topographical works. May include Beowulf, Vercelli Book, poems on women, Bede, and King Alfred. P/NP or letter grading.

145. Medieval Literatures of Devotion and Dissent. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Major poetry and prose of early medieval Britain, including epic, romance, history, saints’ lives, and travel and topographical works. May include Dream of Rood, South English Legendary, Ancren Wisse, Piers Plowman, Lollard writings, macro-plays, Wakefield cycle, Showings of Julian of Norwich, and Book of Margery Kempe. May be repeated for credit with topic or instructor change. P/NP or letter grading.

146. Medieval Story Cycles and Collections. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Popular culture from Umberto Eco to Tolkien, Robin Hood, Arthurs, and Merlin. May be repeated for credit with topic or instructor change. P/NP or letter grading.

147. Medieval Histories, Chronicles, and Records. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Major poetry and prose of early medieval Britain, including epic, romance, history, saints’ lives, and travel literature. Substantial research component included. May be repeated for credit with topic or instructor change. P/NP or letter grading.

148. Medieval Histories, Chronicles, and Records. (5) Course, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Major poetry and prose of early medieval Britain, including epic, romance, history, saints’ lives, and travel literature. Substantial research component included. May be repeated for credit with topic or instructor change. P/NP or letter grading.

149. Anglisch. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Interdisciplinary survey of medieval cultural societies and popular culture from Umberto Eco to Tolkien, Robin Hood, Arthurs, and Merlin. May be repeated for credit with topic or instructor change. P/NP or letter grading.

150A. Shakespeare: Poems and Early Plays. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Specialized study of selected poems and representative comedies, histories, and tragedies through Hamlet. P/NP or letter grading.
150B. Shakespeare: Later Plays. (S) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Intensive study of representative plays, major tragedies. Roman plays, and romances. P/NP or letter grading.

15C. Topics in Shakespeare. (S) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Introduction to or advancement of knowledge of Shakespeare's works through broad or specific topics set by instructor. May be repeated for credit with topic or instructor change. P/NP or letter grading.

151. Milton. (S) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Study of major works of Milton, with emphasis on Paradise Lost. P/NP or letter grading.

152. Literatures of English Renaissance and Early Modern Period. (S) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Study of major works in their cultural context. May be repeated for credit with topic or instructor change. P/NP or letter grading.

153. Theatrical Renaissance: Early Modern Texts and Performances. (S) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Topics may include professional and amateur theatre in court, cities, churches, and countryside of varied sorts of texts—maskes, religious drama, secular drama, charivari—alongside examination of texts, performers, and performance spaces that may be varied with topic or instructor change. P/NP or letter grading.

154. Renaissance Worlds. (S) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Variable topics, including travel literature, representation and expansion, transnational and transcultural texts, science and cosmography, conceptual worlds of myth and philosophy, as expressed in literature and other arts. May be repeated for credit with topic or instructor change. P/NP or letter grading.

155. Renaissance Subjects. (S) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Literary representations of personhood in early modern period, with attention to issues such as personal voice, relations of privacy/community, bodies/souls, selves/others, as impacted by quotients such as gender, sexuality, race, and ethnicity and created and performed in period from 1500 to 1700. May be repeated for credit with topic or instructor change. P/NP or letter grading.

156. Devotion and Dissent. (S) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Examination of religious thought and practice associated with Reformation and Counter-Reformation enterprises in early modern period and beyond. May be repeated for credit with topic or instructor change. P/NP or letter grading.

157. Translation and Innovation in English Renaissance and Early Modern Period. (S) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Study of major works of English Renaissance literature and culture in relation to literatures of antiquity and continental Renaissance. Topics may include epic tradition, forerunners of modern humanism, studies of major works, translation, and reception. May be repeated for credit with topic or instructor change. P/NP or letter grading.

159. Composition 3 or 3H. Religious doctrines, political ideology, and culture in the literature of period known for its invention of sex/gender system. May be repeated for credit with topic or instructor change. P/NP or letter grading.

160A. Literature of Restoration and Earlier 18th Century. (S) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Study, discovery, and assessment of the literary work of the period and conventions of literary research. Substantial research component included. Consult Schedule of Classes for subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

160B. Literature of Later 18th Century. (S) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Study of literary works and as products of Restoration and earlier 18th century thought. P/NP or letter grading.

161A. Poetry in English to 1850. (S) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Survey of English poetry from its invention to 1850. May be repeated for credit with topic or instructor change. P/NP or letter grading.

162A. Earlier Romantic Literature. (S) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Intensive study of the works of Wordsworth, Coleridge, and Austen, with collateral readings from such authors as Godwin, Burke, Paine, Radcliffe, Edgeworth, Baillie, C. Smith, Burns, Southey, D. Wordsworth, Lamb, DeQuincey, and Scott. P/NP or letter grading.


163A. Romanticism and Revolution. (S) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Exploration of the nature of romanticism and revolution in the literature and thought, and political writing. P/NP or letter grading.

165A. Imperial Culture, 1700 to 1850. (S) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Examination of 19th-century literature as global phenomenon. Ways imaginations engaged with 19th-century global formations, that may include structures and discourses of empire, international language and transport systems, political boundaries and state sovereignty, slave trade, transnational economics, travel and exploration, religious communities, military engagements, and/or cultural conflicts. May not be repeated for credit. P/NP or letter grading.

166A. Global 19th Century. (S) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Examination of 19th-century literature in 18th and 19th centuries. Discussion of relationship between literary and extra-literary texts and shifting patterns and paradigms of imperial rule, as metaphor and as real. Spaces and tensions beyond recognition in this period. Particular attention to representations of otherness both in emergent metropolitan centers and in sites of contact and conquest overseas. Shifts in notions of Orientalism and concepts of race and nation, and ways imperial culture gradually infused almost every aspect of British culture and literature by middle of 19th century. May not be repeated for credit. P/NP or letter grading.

168. Gender, Sexuality, and Body, 1700 to 1850. (S) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Examination of question of gender in literature of period known for its invention of sex/gender system. May be repeated for credit with topic or instructor change. P/NP or letter grading.

169C. Jane Austen and Her Peers. (S) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Coverage of six novels of Jane Austen, as well as literary works that most influenced her: Mary Wollstonecraft's Vindication of the Rights of Woman, Gibbon's Decline and Fall, and Maria Edgeworth's Belinda. P/NP or letter grading.

164A. Earlier 19th-Century Poetry. (S) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Developments in English poetic genres from time of early Romantic Wars to middle decades of 19th century. Readings enable students to understand legacies of 18th-century and Romantic writing and emergence of new forms such as dramatic monologue and novel-in verse. P/NP or letter grading.

165B. Gender, Sexuality, and Body, 1700 to 1850. (S) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Examination of question of gender in literature of period known for its invention of sex/gender system. Topics may include varying representations of gender and sexuality across period, gender and authorship, and literature of embodiment. May not be repeated for credit with topic or instructor change. P/NP or letter grading.

166C. Protestant Dissent and English Literature, 1640 to 1832. (S) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Examination of issues related to the history of early modern English Composition 3 or 3H. Religious doctrines, political ideology, and cultural practices, and aesthetics of Protestant dissent, with some attention to transatlantic radicalism, but main topic is British dissent. Adaptations of such traditions as Lutheranism, Calvinism, Anabaptism, Unitarianism, and Methodism in Scotland, England, and Wales from English Civil War and Glorious Revolution to Reform 1688. Texts include representative theology and political theory (Luther, Calvin, Locke, Priestley, Paine, Wollstonecraft) and
170A. American Literature, 1865 to 1900. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 10A, 10B, and 10C, or 11 and 87. Historical survey of American literature from end of Civil War to beginning of 20th century, including authors such as Howells, James, Twain, Norris, Dickinson, Crane, Cheever, Gilman, and others working in modes of realist and naturalist novel, regional and vernacular prose, and poetry. P/NP or letter grading.

170B. American Literature, 1900 to 1945. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 10A, 10B, and 10C, or 11 and 87. Historical survey of American literature from turn of century to end of World War II. P/NP or letter grading.

170C. American Literature since 1945. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 10A, 10B, and 10C, or 11 and 87. Historical survey of American literature since end of World War II. P/NP or letter grading.

171A. Later 19th-Century Poetry. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C. Development in English poetic genres in relation to significant movements such as aestheticism, decadence, feminism, and imperialism from middle decades of 19th century to turn of 20th century. P/NP or letter grading.

171B. 20th-Century British Poetry. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C. Survey of major British poets from 1900 to present. P/NP or letter grading.

171C. 20th-Century British Fiction. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C. Survey of major British novelists and short story writers from 1900 to present. P/NP or letter grading.

172A. Drama, 1850 to 1945. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C, Survey of American drama from 1850 through World War II. P/NP or letter grading.

172B. Drama, 1945 to Present. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C. Study of American drama from its beginning to present day. Historical period may vary with instructor. May be repeated for credit with topic or instructor change. P/NP or letter grading.

173A. American Poetry, 1900 to 1945. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, and 10C, or 11 and 87. Study of American poetry from beginning of 20th century to end of World War II. P/NP or letter grading.

173B. American Poetry since 1945. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, and 10C, or 11 and 87. Study of American poetry since end of World War II. P/NP or letter grading.

173C. Contemporary American Poetry. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 10A, 10B, or 11 and 87. Study of American poetry mostly by living authors, with emphasis on emergent issues and poetic forms. May be repeated for credit with topic or instructor change. P/NP or letter grading.

174A. American Fiction, 1900 to 1945. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 10A, 10B, and 10C, or 11 and 87. Study of American novels and short stories from beginning of 20th century to end of World War II. P/NP or letter grading.

174B. American Fiction since 1945. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 10A, 10B, and 10C, or 11 and 87. Study of American novels and short stories since end of World War II. P/NP or letter grading.

174C. Contemporary American Fiction. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 10A, 10B, or 11 and 87. Study of American novels and short stories, mostly by living authors, with emphasis on emergent issues and aesthetics. May be repeated for credit with topic or instructor change. P/NP or letter grading.

175. American Nonfictional Prose. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, and 10C, or 11 and 87. Study of American nonfictional prose (essays, autobiographies, travel narratives, and other). Participation and/or historical period vary with instructor. May be repeated for credit with topic or instructor change. P/NP or letter grading.

176. Hemispheric American Literature. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 10A, 10B, and 10C, or 11 and 87. Examination of primarily North American literature from hemispheric rather than nation-based perspective. May be repeated for credit with topic or instructor change. P/NP or letter grading.

177. Interdisciplinary Studies of American Culture. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 10A, 10B, and 10C, or 11 and 87. Interdisciplinary study of American literature in its relationship to other disciplines, including art, architecture, film, history, music, politics, and various social sciences, with emphasis on application of literary methodologies to historical survey of American culture. May be repeated for credit with topic or instructor change. P/NP or letter grading.

178. Topics in Literature, circa 1850 to Present. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 10A, 10B, and 10C, or 11 and 87. Examination of literature from this time period and conventions of literary research. Substantial research component included. Consult Schedule of Classes and departmental descriptions for subjects to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

179. Topics in Literature, circa 1850 to Present: Research Component. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 10A, 10B, and 10C, or 11 and 87. Study of literatures from this time period and conventions of literary research. Substantial research component included. Consult Schedule of Classes and departmental descriptions for subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

180. Topics in Literature and Language. (5) Seminar, three or four hours. Requisites: courses 10A, 10B, and 10C, or 11 and 87. Consult Schedule of Classes for author, period, genre, or subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

180R. Junior Research Seminar. (5) Seminar, three hours. Enforced requisites: courses 10A, 10B, 10C. Strongly recommended for students who plan to enroll in capstone seminars. Study of range of approaches to literature and cultural research in literary criticism, literary craft, and theoretical to equip students with skills working with primary sources, secondary criticism, and online databases. Specific literature varies with instructor. May not be repeated for credit, P/NP or letter grading.

181A. Topics in Genre Studies. (5) Seminar, three or four hours. Requisites: courses 10A, 10B, and 10C, or 11 and 87. Consult Schedule of Classes for author, period, genre, or subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

181B. Topics in Interdisciplinary Studies. (5) Seminar, three or four hours. Enforced requisites: courses 10A, 10B, 10C. Consult Schedule of Classes for author, period, genre, or subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

181C. Topics in Critical Theory. (5) Seminar, three or four hours. Enforced requisites: courses 10A, 10B, 10C. Consult Schedule of Classes for author, period, genre, or subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

181D. Topics in Imperial, Transnational, and Postcolonial Studies. (5) Seminar, three or four hours. Enforced requisites: courses 10A, 10B, 10C. Consult Schedule of Classes for author, period, genre, or subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.
182A. Topics in Medieval Literature. (5) Seminar, three or four hours. Enforced requisites: courses 10A, 10B, 10C. Consult Schedule of Classes for author, period, genre, or subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

182B. Topics in Renaissance and Early Modern Literature. (5) Seminar, three or four hours. Enforced requisites: courses 10A, 10B, 10C. Consult Schedule of Classes for author, period, genre, or subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

182C. Topics in 18th-Century Literature. (5) Seminar, three or four hours. Enforced requisites: courses 10A, 10B, 10C. Consult Schedule of Classes for author, period, genre, or subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

182D. Topics in Romantic Literature. (5) Seminar, three or four hours. Enforced requisites: courses 10A, 10B, 10C. Consult Schedule of Classes for author, period, genre, or subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

182E Topics in 19th-Century American Literature. (5) Seminar, three or four hours. Enforced requisites: courses 10A, 10B, 10C, or 11 and 87. Consult Schedule of Classes for author, period, genre, or subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

182F. Topics in 20th- and 21st-Century Literature. (5) Seminar, three or four hours. Requisites: courses 10A, 10B, and 10C, or 11 and 87. Consult Schedule of Classes for author, period, genre, or subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

183A. Topics in Colonial American Literature. (5) Seminar, three or four hours. Requisites: courses 10A, 10B, and 10C, or 11 and 87. Consult Schedule of Classes for author, period, genre, or subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

183B. Topics in 20th- and 21st-Century American Literature. (5) Seminar, three or four hours. Requisites: courses 10A, 10B, and 10C, or 11 and 87. Consult Schedule of Classes for author, period, genre, or subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

183C. Topics in Chicana/o and/or Latina/o Literature and Culture. (5) Seminar, three or four hours. Requisites: courses 10A, 10B, and 10C, or 11 and 87. Consult Schedule of Classes for author, period, genre, or subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

184. Capstone Seminar: English. (5) Seminar, three hours. Requisites: courses 10A, 10B, and 10C, or 11 and 87, and completion of at least four upper-division courses required for major. Limited to senior English or American Literature and Culture majors. Students use knowledge from prior coursework to address current topics in discipline and work with faculty members on focused research questions. Culling paper or project and class presentation required. May be repeated once for credit with topic or instructor change. Letter grading.

M185. Professional Writing Capstone. (4) (Same as English Composition M185B.) Seminar, four hours. Limited to junior/senior Professional Writing minors. Topical writing workshop on rhetorical strategies useful in written and multimodal genres. Intended to provide students with opportunity for serious engagement with writing project in their minor specialization under close faculty supervision and in constructive writing group. Includes comprehensive oral presentation, rhetorical analysis, and development of professional portfolio. Students develop their capstone projects, including identifying appropriate models, generic expectations, and rhetorical choices. P/NP or letter grading.

188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Colloquium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May be repeated twice for Letter grading.

188SB. Independent Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: course 188SA. Enforced corequisite: Honors Colloquium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to finalize course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced corequisite: course 188SB. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE 88S course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading. Limited to juniors/seniors.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individualized study of advanced topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

190H. Honors Research Colloquium in English. (1) Seminar, one hour. Enforced corequisite: course 198A or 198B. Designed to bring together students under the direction of a supervised tutorial research for departmental honors in seminar setting with one or more faculty members to discuss their own work in progress and critical readings related to honors projects. Led by one supervising faculty member. May be repeated for credit. P/NP grading.

M191A. Topics in African American Literature. (5) (Same as African American Studies M179A.) Seminar, three or four hours. Enforced requisites: English Composition 3 or 3H. Variable specialized studies course in African American literature. Topics may include Harlem Renaissance, African American literature in Nadir, black women’s writing, contemporary African American fiction, and African American poetry. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M191B. Topics in Chicana/Chicana and/or Latina/Latina Literature and Culture. (5) (Same as Chicana/o and Central American Studies M139.) Seminar, three or four hours. Enforced requisites: English Composition 3 or 3H. Variable specialized studies course in Chicana/Chicana literatures. Topics may include Chicana/Chicana visions of Los Angeles; immigration, migration, and exile; autobiography and historical change; Chicana/Chicana journalism; literary New Mexico; critical methodological issues. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M191C. Topics in Asian American Literature. (5) (Same as Asian American Studies M191F.) Seminar, three or four hours. Enforced requisites: English Composition 3 or 3H. Variable specialized studies course in Asian American literature. Topics may include genres (autobiography, novel, poetry, short fiction, or drama); specific historical, cultural and historical communities; notions of identity; themes of transnational migration; cross-cultural, interdisciplinary, or intercultural negotiation; and gender and queer politics. Reading, discussion, and development of culminating project. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M191D. Topics in Queer Literatures and Cultures. (5) (Same as Gender Studies M191D and Lesbian, Gay, Bisexual, Transgender, and Queer Studies M191D.) Seminar, three or four hours. Enforced requisites: English Composition 3, Consult Schedule of Classes for author, period, genre, or subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

191H. Honors Research Seminars in English. (5) Seminar, three hours. Enforced requisites: courses 10A, 10B, 10C, or 11 and 87. Consult Schedule of Classes for author, period, genre, or subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M191P. Careers in Humanities. (4) (Same as Comparative Literature M191P.) Seminar, three hours. Challenges misassumptions regarding humanities majors and their practical applications to life after graduation. Engagement with wide range of career-focused hands-on practice in crafting professional narrative. Guest lectures from UCLA professionals and alumni—all experts in career planning and local industry. Students engage in workshops to simultaneously build professional dossier—on paper or online—in preparation for life after UCLA with a humanities degree. P/NP or letter grading.

M192. Undergraduate Writing in English: Journals. (2) (Same as English Composition M192.) Seminar, two hours. Training and supervised practicum for undergraduate student editors of campus journals supported by faculty members in English and/or Writing Programs. May be repeated for credit. P/NP or letter grading.

193. Colloquia and Speakers’ Series Undergraduate Seminars in English. (1) Seminar, one hour. Limited to undergraduate students. Discussion of current critical literature and/or creative readings by writers, artists, and scholars. Exploration in greater depth of literary topics and creative work presented through sponsored forums, speakers’ series, and colloquia. May be repeated for credit. P/NP grading.

195CE. Community and Corporate Internships in English. (4) Tutorial, to be arranged; fieldwork, eight to 10 hours. Limited to juniors/seniors. Internship in corporate, governmental, or nonprofit setting coordinated through Center for Community Learning. Students complete weekly written assignments, attend bi-weekly meetings with graduate student coordinator, and write final research paper. Focus on senior and graduate student coordinator construct series of reading assignments that examine issues related to internship site. May not be applied toward major requirements. May be repeated for credit with consent of Center for Community Learning. Individual contract with supervising faculty member required. P/NP or letter grading.

197. Individual Studies in English. (2 to 5) Tutorial, four hours. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned readings and/or tangible evidence of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.


199. Directed Research or Senior Project in English. (2 to 8) Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual literary research and creative projects under guidance of faculty mentor. Cul-
minating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

200. Graduate Proseminar. (4) Seminar, three hours. Introduction to profession of literary studies. Covers wide array of topics including state of discipline and various scholarly organizations and conference presentations; critical and methodological approaches to literary studies; writing and publishing for scholarly and general audiences; building a vita and resume; developing professional skills; understanding academic job market and humanities careers. S/U or letter grading.

201. History of Literary Criticism and Aesthetic Interpretation. (4) Formerly numbered 201A.) Seminar, three hours. Examination of major texts in literary criticism and aesthetic interpretation from classical to contemporary period with focus and topics to be set by individual instructor. S/U or letter grading.

202. Narrative Theory. (4) Seminar, three hours. Introduction to concepts and theories of narrative. These may include linguistic, sociological, cognitive, and computational approaches to narrative such as plot, narrator, character, and style across different media. S/U or letter grading.

203. Digital Theories and Methods. (4) Seminar, three hours. Theories and practices of using computational tools and methods, including digital archives, for analysis of literary texts across media. S/U or letter grading.

M205A. Study of Oral Tradition: History and Method. (4) (Same as Scandinavian M271.) Seminar, three hours. Exploration of scholarly and literary attempts to study, define, analyze, promote, and/or appropriate oral traditions, from Homer and ancient Greece to origins of vernacular literatures, European romantic (re)discovery of oral tradition, 20th-century heuristic models of oral composition, and modern-day electronic media and popular verbal genres, such as joking and rapping. S/U or letter grading.

M205C. Studies in Oral Traditional Genres. (4) (Same as Scandinavian M273.) Seminar, three hours. Exploration in depth of variety of history and of scholarship on, particular oral traditional genre (e.g., ballad, song, epic, proverb, riddle, folktale, legend) or set of closely related oral traditions. S/U or letter grading.


211. Old English. (4) Lecture, four hours. Study of Old English grammar, lexicon, phonology, and pronunciation to enable students to read literature silently and aloud. Reading of as much of more interesting Old English prose and poetry as can be read in one term. S/U or letter grading.

212. Middle English. (4) Lecture, four hours. Requisite: course in Old English. Detailed study of linguistic aspects of Middle English and of representative examples of better prose and poetry. S/U or letter grading.

M215. Paleography of Latin and Vernacular Manuscripts, 900 to 1500. (4) (Same as Classics M218, French M210, and History M218) Lecture, three hours; discussion, two hours. Introduction to history of Latin and vernacular manuscript book from 900 to 1500 to (1) train students to make informed judgments with regard to place and date of origin, (2) provide training in accurate reading and transcription of later medieval scripts, and (3) examine manuscript book as witness to changing society that produced it. Focus on relationship between manuscripts and vernacular manuscripts with regard to their respective presentation of written texts. S/U or letter grading.


230. Workshop: Creative Writing. (2 to 4) Lecture, two to four hours. Preparation: submission of writing samples in specified genre (poetry, fiction, or drama). May be repeated but may not satisfy more than one of nine courses required for first qualifying examination nor any of five courses required for second qualifying examination. S/U or letter grading.

242. Language and Literature. (4) Seminar, three hours. Application of linguistics to literary analysis. Individual seminars dealing with one historical period (medieval and Renaissance, neoclassical, or 19th century and modern), specific authors, or contributions of specific groups of linguists to literary analysis. S/U or letter grading.

244. Old and Medieval English Literature. (4) Seminar, four hours. Studies in poetry and prose of Old and medieval English literature; limits of investigation set by individual instructor. May be repeated for credit. S/U or letter grading.

245. Chaucer. (4) Lecture, four hours. May be repeated for credit. S/U or letter grading.

246. Renaissance Literature. (4) Seminar, four hours. Studies in poetry and prose of Renaissance English literature, exclusive of Shakespeare; limits of investigation set by individual instructor. May be repeated for credit. S/U or letter grading.

247. Shakespeare. (4) Lecture, three hours. May be repeated for credit. S/U or letter grading.


250. Restoration and 18th Century Literature. (4) Seminar, three hours. Studies in English poetry and prose, 1660 to 1800; limits of investigation set by individual instructor. May be repeated for credit. S/U or letter grading.

251. Romantic Writers. (4) Seminar, three hours. May be repeated for credit. S/U or letter grading.

252. Victorian Literature. (4) Lecture, three hours. Studies in English poetry and prose of Victorian period; limits of investigation set by individual instructor. May be repeated for credit. S/U or letter grading.

253. 20th- and 21st-Centuries Literatures in English. (4) Seminar, three hours. Studies in 20th- and 21st-century literatures in English. Focus and topics to be set by individual instructor. May be repeated for credit. S/U or letter grading.


255. Topics in Novel. (4) Seminar, three hours. Thematic approach to study of novel. May be repeated for credit. S/U or letter grading.

256. Studies in Genre. (4) Seminar, three hours. Formal approach to study of one genre and its changes across time. May be repeated for credit. S/U or letter grading.


259. Studies in Criticism. (4) Lecture, three hours. May be repeated for credit. S/U or letter grading.

260. Studies in Literature and Its Relationship to Arts and Sciences. (4) Seminar, three hours. Studies in interrelationships of literature, arts, and sciences; limits of investigation set by individual instructor. May be repeated for credit. S/U or letter grading.

M260A. Topics in Asian American Literature. (4) (Same as Asian American Studies M260A) Seminar, three hours. Graduate seminar that examines and critically evaluates writings of Asian Americans. May be repeated for credit. S/U or letter grading.

261. Studies in Chicana/Chicano Literature. (4) (Same as Chicana/o and Central American Studies M261.) Seminar, three hours. Intensive research and study of major themes, authors, and issues in Chicana/Chicano literature and an examination of cultural, political, aesthetic, economic, and social context that emerged in Chicana/Chicano discourse; limits of investigation set by individual instructor. May be repeated for credit. S/U or letter grading.

M262. Studies in Afro-American Literature. (4) (Same as African American Studies M200E.) Lecture, four hours. Intensive research and study of major themes, issues, and writers in Afro-American literature. Discussions and research on aesthetic, cultural, and social backgrounds of Afro-American writing. May be repeated for credit. S/U or letter grading.

265. Postcolonial Literatures. (4) Seminar, three hours. Study of aesthetic, historical, and social backgrounds to literatures of former British colonies that became independent after 1947. General issues related to way imperialism, colonialism, and postcolonialism have helped to shape and have been shaped by literature in English. May be repeated for credit. S/U or letter grading.

M266. Cultural World Views of Native America. (4) (Same as American Indian Studies M200B.) Seminar, three hours. Exploration of written literary texts from oral cultures and other expressive cultural forms dance, art, song, religious and ritualistic—theories of cultural societies from social and cultural models of oral composition, and modern-day electronic media and popular verbal genres, such as joking and rapping. S/U or letter grading.

M290. Science Communications and Environmental Media. (4) (Same as Environment M242.) Seminar, three hours. Designed for graduate students in food, energy, and water systems (FEWS) training program to survey fields of science communications and environmental narrative from nonfiction to new media (multimedia journalism, documentary, social media, visual reality, etc.), and to explore the role of media in projects communicating student research to diverse public audiences. Course is part of National Science Foundation (NSF) graduate traineeship in integrated urban solutions for food, energy, and water systems (FEWS) training grant program. Enrollment for non-FeWS students in STEM graduate education and related sustainability majors/topics by consent of instructor. S/U or letter grading.

M299. Interdisciplinary American Studies. (6) (Same as History M299.) Discussion, four hours. Readings, discussion, and papers on common theme, team-taught by faculty members from different departments. Topics vary according to participating faculty. May be repeated for credit with consent of instructors. S/U or letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum assigned. May be repeated for credit. May not be substituted for any departmental enrollment requirements. May be repeated for credit. S/U or letter grading.


495A. Supervised Teaching Preparation. (4) Seminar, three hours. Required of all applicants for teaching assistantships in English. Introduction to teaching of
The Entrepreneurship minor introduces under-

graduate students to the field of entrepreneur-

ship. Entrepreneurship encompasses a wide
ange of business activities, from the genera-

tion of new ideas for products and services, to

the systematic evaluation and development of

those ideas, to the process of building a com-

pany to pursue them. Faculty members teaching

in the minor are drawn from academic depart-

ments across campus, applied fields in the pro-

fessional schools, and industry.

Through a carefully developed core curriculum

and an integrative capstone experience, stu-

dents in the minor obtain both breadth and

depth in their understanding of the concepts,

frameworks, and practical implications of

entrepreneurship in an interdisciplinary and col-

laborative educational environment.

Undergraduate Minor

Entrepreneurship Minor

Admission

To enter the Entrepreneurship minor, students

must (1) have an overall grade-point average of

3.0 or better and (2) submit an application sup-

porting their interest in pursuing the minor. Ap-

plications are accepted in fall, winter, and

spring quarters. To help plan the course sched-

ule and internship/field experience, students are

expected to work closely with the academic

adviser. Applications are available on the minor

website.

The Minor

Required Lower-Division Course (4 or 5 units):

Communication 1 or any Writing II course.

Required Upper-Division Courses (32 or 33

units): Management 159, 160, 161, 169, 199 (4

units minimum), and three elective courses se-

lected from Ancient Near East M105, Commu-

nication 109, M117, 133, 156, Dance C184,

Digital Humanities 101, 150, Economics 106E,

173AX, 173BX, Environment 163, Ethnomusi-

cology 105, Management 162, 163, 164, 165,

167, 168, Sociology 172. At least two of the

three elective courses must be selected from the

management courses listed above.

Policies

A minimum of 20 units applied toward the mi-

nor requirements must be in addition to units

applied toward major requirements or another

minor.

Each minor course must be taken for a letter

grade, and students must have an overall

grade-point average of 3.0 or better in the mi-

nor. Successful completion of the minor is indi-

cated on the transcript and diploma.

Entrepreneurship / 449
The environment is defined broadly to include the interrelated issues of global climate change, loss of biological diversity, and threats to human health and well-being from the use and misuse of natural resources, applying all the tools of scientific and policy analysis as well as moral and aesthetic values to the work. The environment is a crucial component of sustainability, which is defined as the simultaneous consideration of environmental, economic, and social justice concerns. Los Angeles itself is a vital asset to this mission. As an international mega-city located in one of the world’s most biologically diverse regions, Los Angeles is a magnet for scholars from around the world who are facing similar issues of pollution, access to potable water, demand for energy, fragmenta-
tion of habitat, and the need to restore ecological function to sprawling urban settlements in a manner that supports economic growth and that is socially just and equitable.

Overview

The environment is defined broadly to include the interrelated issues of global climate change, loss of biological diversity, and threats to human health and well-being from the use and misuse of natural resources, applying all the tools of scientific and policy analysis as well as moral and aesthetic values to the work. The environment is a crucial component of sustainability, which is defined as the simultaneous consideration of environmental, economic, and social justice concerns. Los Angeles itself is a vital asset to this mission. As an international mega-city located in one of the world’s most biologically diverse regions, Los Angeles is a magnet for scholars from around the world who are facing similar issues of pollution, access to potable water, demand for energy, fragmenta-
tion of habitat, and the need to restore ecological function to sprawling urban settlements in a manner that supports economic growth and that is socially just and equitable.

Mission

The mission of the UCLA Institute of the Environment and Sustainability (IoES) is to advance cross-disciplinary research, teaching, and public service on matters of critical importance to the planet and the campus community.

Undergraduate Study

The Bachelor of Science (BS) degree in Environmental Science is an innovative dual-component degree program for students seeking a challenging and invigorating science curriculum. The first component, the Environmental Science major, provides students with disciplinary breadth in several areas important to environmental science. The second component, a minor or concentration in one of seven environmental science areas, provides students with focused disciplinary depth in an area of their choosing. The minor in Environmental Systems and Society is designed for students who wish to gain a deeper understanding of the relationships between environ-
mental science and associated social and political issues.

The IoES also sponsors Environment M1A, M1B, M1CW and Clusters M1A, M1B, M1CW titled Food: Lens for Environment and Sustainability. The cluster format is a series of three integrated freshman-team-taught courses over the fall, winter, and spring quarters. The fall and winter quarter courses consist of lectures and discussions. The spring quarter consists of seminars and activities in which students explore specialized food-related environmental and sustainability topics such as sustainable agriculture, food culture and justice, and strategies for feeding the growing human population.

Graduate Study

At the graduate level, the IoES offers two degree programs and a graduate certificate.

Graduate Certificate

The national award-winning Leaders in Sustainability graduate certificate program is free to UCLA graduate students pursuing degrees in any discipline. Companies, consumers, and governments across the world increasingly focus on making products, services, operations, and lives more sustainable. The certificate program gives students the tools to make that happen in a collaborative, action-oriented setting. By bringing together students and faculty from diverse academic fields, the program fosters cross-pollination for innovative ideas and solutions. Each graduate student takes a core sustainability class along with electives of their choosing. Working with other students, faculty and professionals, students initiate a leadership project that measurably advances sustainability. For many, this project serves as a jumping-off point into their post-graduate careers and studies.

Environmental Science BS

The Environmental Science BS program represents strong collaboration between the Institute of the Environment and Sustainability and the departments of Atmospheric and Oceanic Sciences; Civil and Environmental Engineering; Earth, Planetary, and Space Sciences; Ecology and Evolutionary Biology; Environmental Health Sciences; and Geography. The program is designed for students who are deeply interested in the study of environmental science. There are two components to the program, and both must be completed to receive the degree. The first component, the Environmental Science major, requires completion of lower-division requirements grounded in basic natural sciences, a five-course upper-division environmental science requirement reflecting the disciplinary breadth of environmental science, three social sciences/humanities coursework, participation in a sustainability-focused speaker series, and completion of an environmental science practicum. The second component is a minor or concentration in one of seven environmental science areas, each associated with a particu-
lar department. With assistance from IoES staff, students must formally apply to and be accepted by the associated department to receive the minor.

Capstone Major

The Environmental Science major is a designated capstone major. In collaboration with a local agency or nonprofit institution, students work individually and in groups to complete projects that require them to integrate many of the skills, principles, theories, and concepts they have learned throughout the curriculum and apply them to real systems. Students are expected to contribute meaningfully to the analysis and solution of particular environmental science issues involving multiple disciplines and stakeholders with different perspectives. Those completing the major should possess critical thinking skills, problem-solving abilities, and familiarity with essential computational, data collection, and analysis skills, as well as demonstrate effective oral and written communication skills. Graduates should also be able to identify key ethical issues and analyze the consequences of various professional dilemmas, as well as work productively as part of a team.

Learning Outcomes

The Environmental Science major has the following learning outcomes:

- Ability to apply theories or concepts from coursework to analysis of issues in the field
- Ability to make meaningful contribution to analysis and solution of particular issues involving multiple disciplines and stakeholders with different perspectives
- Critical thinking skills, problem-solving abilities, and familiarity with computational and data collection and analysis procedures essential to the field
- Ability to identify ethical issues raised by a particular issue
- Ability to analyze the consequences of various professional dilemmas
- Ability to work productively with others as part of a team
- Effective oral and written communication skills

Entry to the Major

Transfer Students

Transfer applicants to the Environmental Science major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two general chemistry courses with laboratory for majors, two general biology courses with laboratory for majors, two calculus courses, and two calculus-based physics courses.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major

Required: Chemistry 1A, 1B, and 1BLC (or 20A, 20B, and 20L), Environment 10, Geography 7, Life Sciences 7A, 7B, Mathematics 3A
and 3B (or 31A or 31AL and 31B, or Life Sciences 30A and 30B), Physics 5A and 5C (or 1A and 1B), Statistics 12 or 13 (or Life Sciences 40). For the atmospheric and oceanic sciences minor, Chemistry and Biochemistry 14C (or 30A) or Mathematics 3C (or 32A) or Physics 1C (or 5B) is also required. For the conservation biology minor, Chemistry and Biochemistry 14C (or 30A) or Life Sciences 7C and 23L is also required. For the Earth and environmental science minor, Chemistry and Biochemistry 14C (or 30A) or Mathematics 3C (or 32A) or Physics 1C (or 5B), Earth, Planetary, and Space Sciences 1, and one course from 5, 13, 15, or 61 are also required. For the environmental engineering minor, Mathematics 3C (or 32A) is also required. For the environmental health concentration, Chemistry and Biochemistry 14C (or 30A) is also required. For the environmental systems and society minor, one course from Chemistry and Biochemistry 14C (or 30A), Earth, Planetary, and Space Sciences 1, Life Sciences 7C (and 23L), Mathematics 3C (or 32A), and Physics 5B (or 1C) is also required. For the geography/environmental studies minor, one course from Chemistry and Biochemistry 14C (or 30A), Earth, Planetary, and Space Sciences 1, Life Sciences 7C (and 23L), Mathematics 3C (or 32A), and Physics 5B (or 1C), plus Geography 5 and one course from 1, 2, 3, 4, or 6 are also required. Students should take these courses before enrolling in upper-division courses.

The Major

The major consists of four requirements: physical and life science, social science and humanities, practicum/sustainability talks, and minor or concentration, as follows:

Physical and Life Sciences Requirements

Required: Environment 175 and four additional courses from the following physical and life science areas. No more than two courses may be from any one department. Atmospheric and Oceanic Sciences 101, 102, 103, 104, M105, 107, 112, 121, 123, 130, 141, Civil Engineering 153, 154, M166, Earth, Planetary, and Space Sciences 101, C113, 119, 139, 150, 153, Ecology and Evolutionary Biology 100, 109, 116, 136, 151A, 154, Environment 157, Environmental Health Sciences 100, C125, C152D, Geography 101, M102, M103, 107, M110, 116, 117, M118, 120, M126, 133. Social Sciences and Humanities Requirements

Required: Environment 140 and two courses from Anthropology 132, 133, Atmospheric and Oceanic Sciences 121, 123, English 118E, Environment M125, M133, M147, 150, M153, 155, 157, C159, M161, 162, 163, M164, 166, M167, Geography M127, 130, 138, M142, 160, 171C, Philosophy 125, Public Affairs M160, Society and Genetics 141, Urban Planning 121. Practicum/Sustainability Talks Requirements

Required: Environment 180A, 180B, 180C, 185A. Minor and Concentration Requirements

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor. Successful completion of a minor is indicated on the transcript and diploma. For the atmospheric and oceanic sciences minor, seven 4-unit courses, including (1) three from Atmospheric and Oceanic Sciences M100, 101, 102, 103, 104, M105, M106, 107, C110, C111, 112, CM114A, C115, M120, 121, 123, 130, 135, 141, C144, 145, 150, 155, C160, C170, 180, and (2) four additional courses, two of which must be upper-division, from any of the above atmospheric and oceanic sciences courses beyond the minimum four required or from Atmospheric and Oceanic Sciences 1, 2, 3, 186 (must be taken twice), Chemistry 103, 110A, 110B, 113A, C113B, 114, Earth, Planetary, and Space Sciences 15, Ecology and Evolutionary Biology 109, C119A, 122, 123A or 123B, 147, 148, Mathematics 115A, 115B, 132, 135, 136, 146, 170A, 170B, Physics 110A, 110B, 112, M122, 131, 132. Other relevant courses from related disciplines may be substituted with prior approval of the department. At least five courses approved for the minor must be upper-division. One course may be taken on a Passed/Not Passed basis. For the conservation biology minor, Ecology and Evolutionary Biology 100, 116, and four to six courses from 100L, 101, 103, 105, 109, 109L, 111, 112, 113A, 113AL, 114A, 114B, C119A, C119B, 122, M127, 129, M131, 140, 142, 143, 144, 144L, C146, 149, 151A, 152, 152A, 153, 154, 155, 161, 162, 162L, 168, C174, 176, 180A, 180B, 183, 184, any associated courses with the Field Biology Quarter or the Marine Biology Quarter or approved equivalent. Geography M103, 106, 107, 116, 117, M118, M126, M131, 133 (a maximum of two Geography courses may be applied to the minor) are required. For the Earth and environmental science minor, five courses from Earth, Planetary, and Space Sciences 101, 112, C113, 139, 150, 153 are required. For the environmental engineering minor, Civil Engineering 5 and five courses from Civil Engineering 110, 150, 151, 152, 154, 155, 156A, 156B, 157A, 157B, 157C, 157L, C159, C164, M165, M166, Mechanical and Aerospace Engineering 103, 105A are required. Credit for both Chemical Engineering 102A and Mechanical and Aerospace Engineering 105A is not allowed. For the environmental health concentration, Epidemiology 100, two courses from Environmental Health Sciences 100, C135, C185A, C185B, and three courses from Chemistry and Biochemistry 153A, Environmental Health Sciences C125, C140, C152D, C157, C164, 203 are required. For the environmental systems and society minor, seven courses from Environment M111, M125, M126, M131, M133, 134, 140, M147, 150, M153, 155, 157, C159, M161, 162, 163, M164, 166, M167, 175 are required. For the geography/environmental studies minor, three courses from Geography M102, M103, 109, M118, M125, M126, M127, 130, M131, 133, 136, 138, 139B, 139C, and any two additional upper-division geography courses (except those from the preceding list and courses 194 through 199) are required.

Honors Program

The honors program provides exceptional students an opportunity for advanced research and study, under the guidance of a faculty member, that leads to the completion of an honors thesis or research project. To qualify for graduation with honors, students must (1) complete all requirements for the major, (2) have a cumulative grade-point average of 3.5 or better in upper-division coursework in the major and an overall GPA of 3.0 or better, (3) complete at least 8 units of Environment 198 taken over at least two terms, and (4) produce a completed satisfactory honors thesis. The honors thesis or research project is in addition to the requirement of the completed practicum in environmental science project. Contact the student affairs officer for more information.

Policies

Preparation for the Major

Each course applied toward requirements for preparation for the major must be passed with a grade of C– or better. Students receiving a grade below C– in two courses, either in separate courses or repetitions of the same course, are subject to dismissal from the major.

The Major

Each course applied toward requirements for the major, except Environment 185A, must be taken for a letter grade. Students must maintain an overall grade-point average of 2.0 (C) or better in all courses applied toward the major.

Undergraduate Minor

Environmental Systems and Society Minor

The Environmental Systems and Society minor is designed for students who wish to augment their major program of study with courses addressing the relationships between environmental science and associated social and political issues. The minor seeks to impart a deeper understanding of environmental systems related to air, land, and water resources, providing a basis for sound professional decision making.

Admission

To enter the minor, students must be in good academic standing (2.0 grade-point average) and file a petition at the Institute of the Environment and Sustainability, 300 La Kretz Hall, 310-206-3193.
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Policies
A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor, and at least 16 units applied toward the minor must be taken in residence at UCLA. Transfer or substitution of credit for any of the above is subject to institute approval; consult with an academic adviser at the institute before enrolling in any courses for the minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Majors
Doctor of Environmental Science and Engineering
The Environmental Science and Engineering (DEnv) professional doctorate program was founded in 1973 by Nobel laureate Dr. Willard Libby, who envisioned a need to train environmental scientists, engineers, and policymakers in a more interdisciplinary manner than is afforded by traditional PhD programs. The program is designed with an appropriate balance of breadth and specific skills, based on a strong master’s-level foundation in a science or engineering discipline. The curriculum consists of formal coursework across a full spectrum of relevant physical, biological, social, and engineering disciplines, as well as interdisciplinary research training and an off-campus residency where students complete their dissertation embedded in an agency, business, or non-profit organization. UCLA remains unique in the country in awarding the Doctor of Environmental Science and Engineering degree.

Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Environment and Sustainability MS, PhD
The Environment and Sustainability PhD program was launched in 2018. The program equips students with diverse perspectives to develop profound new ideas, knowledge and answers to the most important concerns facing people and the planet. The program provides a deep understanding of how fundamental principles of environmental science and sustainability can be applied to research and address key environmental challenges that require skills in multiple disciplines—preparing students for a range of careers in academia, as well as public and private sectors.

Successful completion of the minor program is indicated on the transcript and diploma.

Graduate Majors
Doctor of Environmental Science and Engineering
The Environmental Science and Engineering (DEnv) professional doctorate program was founded in 1973 by Nobel laureate Dr. Willard Libby, who envisioned a need to train environmental scientists, engineers, and policymakers in a more interdisciplinary manner than is afforded by traditional PhD programs. The program is designed with an appropriate balance of breadth and specific skills, based on a strong master’s-level foundation in a science or engineering discipline. The curriculum consists of formal coursework across a full spectrum of relevant physical, biological, social, and engineering disciplines, as well as interdisciplinary research training and an off-campus residency where students complete their dissertation embedded in an agency, business, or non-profit organization. UCLA remains unique in the country in awarding the Doctor of Environmental Science and Engineering degree.

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Environment
Lower-Division Courses
M1A-M1B-M1CW. Food: Lens for Environment and Sustainability. (6–6–6) (Same as Clusters M1A-M1B-M1CW) Course M1A is enforced requisite to M1B, which is enforced requisite to M1CW. Limited to first-year freshmen. M1A-M1B. Lecture, three hours; discussion, two hours. Food as lens for local and global environmental and sustainability issues. Integration of environmental, social, economic, and technological solutions for fair, sustainable, and healthy food production, food security, and access. Focus on human impacts on Earth’s biogeochemical and physical systems, including how food production and consumption contribute to, and is impacted by, global problems, including climate change, pollution, and overpopulation. Laboratory exercises to augment lectures. Letter grading. M1CW. Special Topics, Seminar, three hours. Enforced requisite: course M1B. Examination of specialized environmental and sustainability topics as they relate to food, including climate change, biodiversity, climate change, food access, food security, and health. Satisfies Writing II requirement. Letter grading.

10. Introduction to Environmental Science. (4) Lecture, three hours; laboratory, one hour. Limited to undergraduate students. Introduction to environmental science as discipline and as way of thinking. Discussion of critical environmental issues at local and global scales. Fundamentals of physical, chemical, and biological processes important to environmental science. Laboratory exercises to augment lectures. Letter grading.

12. Sustainability and Environment. (4) Lecture, three hours; discussion, one hour. Introduction to sustainability science and policy component, including Earth’s physical, chemical, and biological processes as related to resource demands and management. Examination of application of scientific method in helping to understand and solve sustainability problems. Case studies illustrating how natural and social scientists work on environmental sustainability issues. Focus on global climate change, biodiversity, pollution, and water and energy resources presented in context of creating sustainable human society that is environmentally sound, economically viable, and socially just and equitable. Letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of specialization, enabling students to imagine many paths of discovery at UCLA. P/NP grading.

25. Good Food for Everyone: Health, Sustainability, and Culture. (5) Lecture, three hours; discussion, one hour. Good food is healthy, sustainably produced, and culturally meaningful. Introduction to basic concepts and history of food systems, food science and nutrition, fair and sustainable food production, natural resources and environmental issues including climate change and biodiversity, agriculture and food policy, and food distribution and access, cultural identity and artistic engagements with food. P/NP or letter grading.

M30. Environmental Literature and Culture. (3) Lecture, three hours; discussion, one hour. Enforced requisite: satisfaction of Entry-Level Writing requirement. Introduction to core themes, questions, and methods within interdisciplinary field of environmental humanities. Examination of how different culture forms (e.g., fiction, journalism, poetry, visual art) represent environmental issues. Topics may include biodiversity, wilderness, food, urban ecologies, postcolonial ecologies, environmental justice, and climate change. P/NP or letter grading.

M30SL. Environmental Literature and Culture (Seminars). (3) Lecture, three hours; discussion, one hour; fieldwork, two hours. Enforced requisite: satisfaction of Entry-Level Writing requirement. Introduction to core themes, questions, and methods within interdisciplinary field of environmental humanities. Examination of how different culture forms (e.g., fiction, journalism, poetry, visual art) represent environmental issues. Topics may include biodiversity, wilderness, food, urban ecologies, postcolonial ecologies, environmental justice, and climate change. Service learning component includes meaningful work with off-campus agency/agencies selected by instructor. P/NP or letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses
M102. Soils and Environment. (4) (Formerly numbered M127.) (Same as Earth and Evolutionary Biology M127 and Geography M102.) Lecture, three hours; discussion, one hour; field trips. General treatment of soils and environmental implications: soil development, morphology, and worldwide distribution of soil orders; physical, chemical, hydrologic, and biological properties; water use, erosion, and pollution; management of soils as related to plant growth and distribution of higher plants and climate change. Service learning component includes meaningful work with off-campus agency/agencies selected by instructor. P/NP or letter grading.

M102L. Soils and Environment Field. (4) (Formerly numbered M127L.) (Same as Earth and Evolutionary Biology M127L and Geography M102L.) Laboratory, one hour; field excursions. Corequisite: course
M102. Investigations and demonstrations supporting soil and water conservation. (4)

M103. Soil and Water Conservation. (Formerly grading.

121. Conservation of Biodiversity. (4)

Earth and Its Environment. (Same as Atmospheric and Oceanic Sciences M100.) Lecture, three hours. Overview of Earth as system of distinct, yet intimately related, physical and biological elements. Origins and characteristics of atmosphere, oceans, and land masses. Survey of history of Earth and of life on Earth, particularly in relation to evolution of physical world. Consideration of possibility of technological solutions to global environmental problems using knowledge gained during course. Letter grading.

M125. Environmentalism: Past, Present, and Future. (Same as Architecture and Community Planning M125 and Urban Planning M165.) Lecture, three hours; discussion, one hour. Exploration of history and policy of major global environmental issues such as climate change, integrating law, policy, and political science perspectives. Recommended requisite: Political Science 20. Politics and policy of major global environmental issues such as climate change, pollution, and air quality; access to ecosystem benefits and services; lack of diversity and engagement; and utilization of socioeconomic systems. Students conduct case study analysis of strategies employed to offer environmental justice, and develop collective course resource on environmental justice strategies. Letter or P/NP grading.

154. Energy and Society in Time of Climate Change: Moving toward Just Transition. (4)

160. Topics in Environmental Economics and Policy. (Seminar, three hours. Requisite: Statistics 12 or 13. Examination of intersection of environmental economics and policy, with focus on testing policy-relevant environmental hypotheses using economics research approach. Invited scholars present research aimed at yielding policy-relevant results on various topics such as climate change, pollution, and transportation. P/NP or letter grading.

M161. Global Environmental and World Politics. (4)

M134. Environmental Economics with Data Analysis. (Lecture, three hours. Requisite: one course from Economics 41, Life Sciences 42, Political Science 6, Statistics 10, or upper division statistics course approved by instructor. Examination of challenges of balancing environmental protection with wants and needs of people in economy. Focus on how to design efficient public policies that meet environmental goals. Lecture, three hours; discussion, one hour. Examination of the role of various energy sources, energy conservation policies, and development of clean energy technologies. Lecture, three hours; discussion, one hour. Examination of implications of current patterns of energy production and consumption for future economic and environmental well-being. Examination of concepts and techniques from physics, engineering, environmental science, economics, and public policy. Letter grading.

C159. Life-Cycle Assessment. (4) Lecture, three hours. Requisite: Life Sciences 30A and 30B, or Mathematics 3A and 3B (or 31A and 31B). Public discourse about current patterns of production and consumption of energy, and goods and services more broadly. Consideration of technological solutions to global environmental problems using knowledge gained during course. Letter grading.
166. Leadership in Water Management. (4) Lecture, three hours; discussion, one hour. Limited to juniors/seniors. Examination of water quality and water supply issues, including biological, physical, chemical, economic, and social issues related to water justice. Because environmental inequality is highly complex phenomenon, multidisciplinary and multidisciplinary population approach taken, using alternative ways of understanding, interpreting, and taking action. P/NP or letter grading.

M167. Environmental Justice through Multiple Lenses. (4) (Same as Public Affairs M161 and Urban Planning M167.) Lecture, three hours. Examination of intersection between race, economic class, and environment in urban settings. Emphasis on solutions involving experts, scholars, and practitioners discuss relevant issues, including interactions between scientific, technical, management, and policy issues. Invited experts, scholars, and practitioners discuss relevant issues, such as pollution, climate change, and water infrastructure. Emphasis on solutions involving integrated urban and water systems. May be repeated for credit. P/NP or letter grading.

170. Environmental Science Colloquium. (1) Seminar, 90 minutes; one field trip. Limited to undergraduate students. Study of current topics in environmental science, building on what students have been exposed to in other courses. Letter grading.

175. Programming with Big Environmental Data. (4) (Requisite: Life Sciences 40 or Statistics 12 or 13.) Students gain practical experience conducting empirical research by learning how to program using R. Modern empirical research often requires understanding of statistical software like R. This programming language shares many similarities with other statistical programs, providing students having valuable labor-market skill. P/NP or letter grading.

180A. Practicum in Environmental Science. (4) Lecture, three hours; discussion, two hours. Enforced requisite: Statistics 12 or 13. Limited to Environmental Science majors who have completed 40 or more units of preparation for major courses, including statistics, and 12 or more units of non-environmental science toward major or minor requirements. Examination of case studies and presentation of tools and methodologies in environmental science, building on what students have been exposed to in other courses. Letter grading.

180B. Practicum in Environmental Science. (5) Lecture, one hour; laboratory, five hours. Enforced requisite: course 180A. Course 180B is requisite to 180C. Limited to juniors/senior Environmental Science majors. Investigation of various aspects of one environmental case study representing actual multidisciplinary issue. Particular emphasis on developing skills required for working as professional in this field. Will involve site investigations, original data collection and analysis, mapping and geographic information systems, and environmental and policy law issues. Case study to be defined and conducted with collaboration of local agency or nonprofit institution. Letter grading.

180C. Practicum in Environmental Science. (5) Lecture, one hour; laboratory, five hours. Enforced requisite: course 180B. Limited to junior/senior Environmental Science majors. Investigation of various aspects of one environmental case study representing actual multidisciplinary issue. Particular emphasis on developing skills required for working as professional in this field. Will involve site investigations, original data collection and analysis, mapping and geographic information systems, and environmental and policy law issues. Case study to be defined and conducted with collaboration of local agency or nonprofit institution. Letter grading.

185A. Sustainability Talks. (1) Lecture, two hours. Analysis of principles of sustainability through series of lectures by world-renowned faculty members, authors, environmentalists, entrepreneurs, policymakers, and progressive thinkers. May be repeated for credit. P/NP or letter grading.

185B. Sustainability Action Research. (2) Lecture, two hours; discussion, three hours. Investigation of issues of campus sustainability, including energy efficiency, transportation, waste stream management, sustainable food practices, and more by student researchers that, together with faculty members and UCLA staff, strive to make UCLA more sustainable community. May be repeated for credit. P/NP or letter grading.

185C. Sustainability Action Leaders. (3) Seminar, two hours; fieldwork, six hours. Students lead research teams to investigate issues of campus sustainability, including energy efficiency, transportation, waste stream management, sustainable food practices, and more to generate coalition of student researchers that, together with faculty members and UCLA staff, strive to make UCLA more sustainable community. May be repeated for credit. Letter grading.

186. Comparative Sustainability Practices in Local/Global Settings. (4) Fieldwork, four hours. Guided fieldwork and comparative analysis used to assess local sustainability practices and policies in diverse regions and intersection of local and regional context on sustainability behavior of individuals, small businesses, and other institutions in everyday life. Letter grading.


188A-188B. Special Courses in Environment. (2–2) Lecture, three hours; discussion, one hour (when scheduled—course 188A) and two hours (course 188B). Departmentally sponsored experimental or temporary courses, such as those taught by visiting faculty members. May be repeated for credit with topic change. P/NP or letter grading.

188A. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors College 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor. May be repeated for credit with topic change. P/NP grading.

188B. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced requisite: course 188A. Enforced corequisite: Honors College 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to finalize course syllabus. Individual contract with faculty mentor required. May be repeated for credit. Letter grading.

188C. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced requisite: course 188B. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE 885 course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

190A. Honors Seminar. (1) Seminar, one hour. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

190B. Honors Research. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

193. Journal Club Seminars: Environment. (1) Seminar, one hour. Limited to undergraduate students. Discussion of readings selected from current literature of field. May be repeated for credit. P/NP grading.

195. Community or Corporate Internships in Environmental Science. (2 or 4) Tutorial, to be arranged. 3.0 grade-point average required. Limited to junior/senior majors. Internship in supervised setting in community agency or business related to environmental science and/or sustainability. Students meet on regular basis with faculty supervisor and provide periodic reports of their experience. May be repeated for maximum of 8 units. Individual contract with supervising faculty member required; consult under- dergraduate adviser. P/NP grading.

198. Honors Research in Environmental Science. (2 to 4) Tutorial, four hours. Limited to junior/senior Environmental Science majors. Development and compilation of honors thesis or comprehensive research of analysis drawn from natural sciences, social sciences, and humanities. Emphasis on conceptual frameworks for defining environmental problems and implementation of research results in solving real-world problems. May be repeated for credit. Letter grading.

200A-200B. Issues and Methods in Environment and Sustainability. (4–4) Seminar, four hours. Course 200A is requisite to 200B. Examination of interdisciplinary case studies that approach problems in environment and sustainability from scientific, social, economic, political, philosophical, ethical, historical, cultural, and policy dimensions. Case studies illustrate use of qualitative and quantitative methods of analysis drawn from natural sciences, social sciences, and humanities. Emphasis on conceptual frameworks for defining environmental problems and implementation of research results in solving real-world problems. May be repeated for credit. 200A-205B-205C. Major Problems in Environment and Sustainability. (2–2–2) Seminar, three hours. Yearlong investigation of questions through series of topics of five of most pressing issues in environment and sustainability over last century: Dust Bowl, lead contamination, dichlorodiphenyltrichloroethane (DDT), stratospheric ozone depletion, and tropical deforestation. Questions include how environmental problems become matters of public concern; what tools, techniques, and practices that make problems visible and legible to different publics and that in form possibilities for response are; how efforts aimed at understanding specific problems from different perspectives changed way other environmental problems and larger processes of environmental change are studied and approached; how get left out in these different ways of seeing, and how do different ways of seeing and governing specific problems facilitate, justify, and compound imposition of harms on particular groups of people. Concurrently scheduled with Law 505A-505B. In Progress (205A, 205B) and S/U or letter grading (205C).

M235. Modern Environmental Statistics. (4) (Same as Statistics M235.) Seminar, three hours. Limited to graduate students. Requires: undergraduate level calculus, linear algebra, and introductory statistics; scientific computing. Introduction to statistical approaches in environmental science, with focus on climatic science. Topics include hypothesis testing, regression, causality, multidimensional data analysis, time series modeling, and extreme value analysis. Draws upon relevant examples in scientific literature. S/U or letter grading.

Graduate Courses
240. Food, Energy, and Water Systems Management Seminar. (1) Seminar, one hour. Designed for students in science, technology, engineering, and mathematics interested in nexus of food, energy, and water systems (FEWS) management and sustainability. Discussion of issues of science, technology, policy, economics, and law with experts in industry, academia, and government. Career development and presentation skills. Course includes conflict resolution, business and entrepreneurship. Course is part of National Science Foundation (NSF) graduate traineeship in integrated urban solutions for food, energy, and water systems (INFEWS). Enrollment for non-INFEWS students in STEM graduate education and related sustainability majors/topics by consent of instructor. S/U or letter grading.

241. Food, Energy, and Water Systems Management in Urban Systems Field Laboratory. (4) Fieldwork, four hours. Designed for students in science, technology, engineering, and mathematics (STEM) filed interested in nexus of food, energy, and water systems (FEWS) management and sustainability. Weekly visits to facility related to FEWS, and discussions of issues in science, technology, policy, economics, and law in written report. Course is part of National Science Foundation (NSF) graduate traineeship in integrated urban solutions for food, energy, and water systems (INFEWS). Enrollment for non-INFEWS students in STEM graduate education and related sustainability majors/topics by consent of instructor. S/U or letter grading.

M242. Science Communications and Environmental Media. (4) (Formerly numbered 242.) (Same as English M242.) Seminar, three hours. Designed for graduate students in food, energy, and water systems (FEWS) training grant program to survey fields of science communications and environmental narrative from nonfiction to new media (multimedia journalism, documentary, social media, virtual reality, etc.), and to develop collaborative projects communicating student research to diverse public audiences. Course is part of National Science Foundation (NSF) graduate traineeship in integrated urban solutions for food, energy, and water systems (INFEWS). Enrollment for non-INFEWS students in STEM graduate education and related sustainability majors/topics by consent of instructor. S/U or letter grading.

250. Tools for Sustainability Assessment. (4) Lecture, three hours. Recommended preparation: introductory courses in industrial ecology, ecological economics, environmental economics, business and management, or public policy analysis. Public discourse about implications of current patterns of production and consumption of energy and various goods and services suggests such patterns are unsustainable. What is meant by sustainability and how is it quantified? Focus on concepts and tools to assess sustainability at micro-level of individuals, products or firms using various techniques, including life-cycle assessment, input-output analysis, and cost-benefit analysis. Exploration of sustainability at macro-level for one entire economy or nation. Discussion of usefulness and limitations of various metrics as guide for public and private decision making. S/U or letter grading.

C259. Life-Cycle Assessment. (4) Lecture, three hours. Requisites: Life Sciences 30A and 30B, or Mathematics 3A and 3B (or 31A and 31B). Public discourse about current patterns of production and consumption of energy, goods and services more broadly is unsustainable and economically unsustainable. Introduction to basic concept of life-cycle assessment (LCA), including analytical frameworks and quantitative techniques for systematic and logically evaluating environmental trade-offs presented by different alternatives. Focus on methodology of LCA to compute various material and energy flows associated with life cycle (i.e., raw material extraction, processing, end use, and disposal) of products or services. Discussion of strengths and limitations of LCA as tool for decision making. Students perform life-cycle analysis of one technology, product, or service of their choice. Concurrently scheduled with course C159. S/U or letter grading.

260. Information, Technology, Business, and Society. (4) Seminar, three hours. Interdisciplinary research seminar to bring social science methods to bear on technology developments to design effective information-based solutions to social problems. Topics include selection and framing of research questions, developing measurements, designing appropriate methods (e.g., surveys, experiments, using available data), and writing up research proposals. S/U or letter grading.

277. Leaders in Sustainability. (4) Lecture, three hours. Common course for all students participating in Leaders in Sustainability Program, including those from engineering, law, management, public affairs, public health, natural and social sciences, and others. Creation of environment for academically based discussions on sustainability-related themes, capitalizing on wide mix of disciplines represented among participating students. Sessions feature UCLA faculty members, external speakers, and leadership skills to help students learn more about how to best put their interests in sustainability to use. Letter grading.

290. Seminar in Environment and Sustainability. (2) Seminar, 90 minutes. Seminars sponsored by Institute of the Environment and Sustainability and other units. Planning and execution of presentations on topics of choice. Emphasis on development of communication skills. May be repeated for credit. S/U grading.

297A-B. Advanced Topics in Environment and Sustainability. (4–2) Seminar, four hours (course 297A) and two hours (course 297B). Advanced study and analysis of variable current topics in environment and sustainability. Consult Schedule of Classes for topics and instructors. May be repeated for credit with consent of instructor. S/U or letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

400. Environmental Science and Engineering Problems Course. (8) Seminar, eight hours. Primarily designed for environmental science and engineering doctoral students. Multidisciplinary technical and socioeconomic analysis and prognosis of significant current environmental problems. May be repeated for credit. S/U grading.

501. Cooperative Program. (2 to 8) Tutorial, to be arranged. Preparation: consent of UCLA graduate advisor, assistant, or associate chair, and host campus instructor, department chair, and graduate dean. Used to record enrollment of UCLA students in courses taken under cooperative arrangements with USC. S/U grading.


599. Doctoral Dissertation Research. (2 to 12) Tutorial, to be arranged. Limited to students who have advanced to doctoral candidacy. May not be applied toward any degree course requirements. May be repeated for credit. S/U grading.

ENVIRONMENTAL HEALTH SCIENCES
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Jared M. Diamond, PhD
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Rachael M. Jones, MPH, PhD
Jian Li, PhD
Timothy Malloy, JD (Frank G. Wells Endowed Professor of Environmental Law)
Andre E. Nel, MBCHB, PhD
Shane S. Que Hee, PhD
Beate R. Ritz, MD, PhD
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Miriam E. Marlier, PhD

Adjunct Professors
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Daniel Z. Uslan, MD

Adjunct Associate Professor
Kevin Y. Njabo, PhD

Adjunct Assistant Professors
Hamid Arabzadeh, CIH
Angelo J. Bellomo, MS
Tao Huai, PhD

Overview

The Department of Environmental Health Sciences focuses its research and educational activities on the protection of human health from biological, chemical, mechanical, and physical hazards in the environment. Its graduates are scientists, professionals, and leaders capable of identifying and measuring stressors of environmental concern; evaluating the health, environmental, and all other impacts of such stressors; developing means for their effective management; and evaluating alternative policies directed at improving and protecting health and the environment. Such training is accomplished through several degree programs that offer specialized study in selected academic areas of environmental health sciences such as air pollution, environmental chemistry, environ-
molecular toxicology, built environment and health, climate and health, global environmental health, water quality, occupational health, and industrial hygiene. Graduates of the department pursue careers in the private or public sector as researchers, educators, managers, policymakers, and/or practitioners.

The department offers Master of Science (MS) and Doctor of Philosophy (PhD) degrees in Environmental Health Sciences and, through the Fielding School of Public Health, the Master of Public Health (MPH) degree with a specialization in environmental health sciences (see Public Health Schoolwide Programs). The department also offers an area of focus on industrial hygiene for its MS and MPH degrees. A concurrent degree program (Environmental Health Sciences MPH/Master of Urban Planning) is also offered. The interdepartmental Molecular Toxicology program offers a PhD degree.

Upper-Division Courses

100. Introduction to Environmental Health. (4) Lecture, three hours; discussion, one hour. Preparation: one course each in chemistry and biology. Limited to nonmajors. Not open for credit to students with credit for course 120. Introduction to environmental health, including coverage of sanitary principles and chronic and acute health effects of environmental contaminants, P/N or letter grading.

101. Fundamentals of Chemistry for Environmental Health. (3) Lecture, three hours; discussion, one hour. Guided tutorial on fundamental chemical concepts that are important for public health students that either do not have strong chemistry or who have not recently taken chemistry class and want to refresh their knowledge. Discussion of examples relevant to environmental health more broadly in each topic area and used to illustrate why understanding fundamental chemical concepts are important. Interactive study with focus on core chemical concepts. Recommended to be taken before or concurrently with introductory courses, P/N or letter grading.

120. Environment and Health. (5) Lecture, three hours; discussion, one hour. Limited to Public Health majors. Not open for credit to students with credit for course 100. Examination of scientific principles and methods of field, as well as translation of science to environmental health practice. Topics include environmental stressors and their health effects, regulations and policies, effects of pollution on ecosystems, or pollution on human health. Acquision of skills important for public health professionals, such as application of scientific information to real-world problems and ability to communicate effectively with different stakeholders.

125. Atmospheric Transport and Transformations of Airborne Chemicals. (4) Lecture, four hours. Preparation: one year of calculus, one course each in physics, organic chemistry, and physical chemistry. Designed for science and public health students. Role of regional or long-range transport, and atmospheric lifetimes and fates of airborne chemicals in phenomena such as photochemical smog, acid deposition, stratospheric ozone depletion, accumulation of greenhouse gases, and regional and global distribution of volatile toxic compounds. Concurrently scheduled with course C255. P/N or letter grading.

C135. Environmental Policy for Science and Engineering. (4) Lecture, four hours, limited to seniors. Designed for senior and graduate students. Examination of theoretical underpinnings of several major types of regulatory policy, as well as practical issues involved in implementing and evaluating each. Exploration of selection and impact of regulatory forms from variety of disciplines and viewpoints. Focus on traditional command and control regulation (including source and performance standards and permitting), market-based regulation (such as emissions trading), remediation, and emerging regulatory approaches such as management-based regulation and alternatives assessment. Issues of compliance and enforcement. Concurrently scheduled with course C235. P/N or letter grading.

C140. Fundamentals of Toxicology. (4) Lecture, four hours. Preparation: one course each in biology, organic chemistry, and biochemistry. Essential aspects of toxicology, with emphasis on human species. Absorption, distribution, excretion, biotransformation, as well as basic toxicologic processes and organizational. Concurrently scheduled with course C240. Letter grading.

C152D. Properties and Measurement of Airborne Particles. (4) Lecture, four hours. Preparation: one year each of chemistry, physics, and calculus. Basic theory and application of aerosol science to environmental health, including properties, behavior, sampling, and measurement of aerosols and quantitative problems. Concurrently scheduled with course C252D. P/N or letter grading.

C157. Risk Assessment and Standard Setting. (4) Seminar, four hours. Requisite: course C140. Designed to provide students with opportunity to review scientific basis for association of selected occupational and environmental exposures with disease. Special emphasis on critical evaluations of literature. Attention specifically to interface of science and regulatory standards. Concurrently scheduled with course C70P or letter grading.


M166. Environmental Microbiology, (4) Same as Civil Engineering M166L. Lecture, four hours; discussion, two hours; outside study, six hours. Recommended requisite: Civil Engineering 153. Microbial cell and its metabolic capabilities, microbial genetics and its potential, growth of microbes and kinetics of growth, microbial ecology and diversity, microbiology of wastewater treatment, probing of microbes, public health microbiology, pathogen control. Letter grading.

M166L. Environmental Microbiology Laboratory, (2) Same as Civil Engineering M166L Lecture, one hour; laboratory, two hours; outside study, six hours. Requisite: course M166L (may be taken concurrently). General laboratory practice within environmental microbiology, sampling of environmental samples, classical and molecular detection of microbes from environmental samples, techniques for determination of microbial activity in environmental samples, laboratory setups for studying environmental microbiology. Letter grading.

C185A. Foundations of Environmental Health Sciences. (4) Lecture, four hours. Preparation: one year of undergraduate biology and chemistry. Introduction to field of environmental health sciences designed for students pursuing concentration in environmental health or Public Health minors. Examination of series of topics relevant to science of environmental and occupational health (e.g., climate change, epidemiology, environmental health microbiology, and toxicology) by introducing scientific basis from ecological perspective and describing how topics relate to health on a biochemical and molecular basis. Emphasis on scientific aspects of field, with focus on critique of primary literature and quantitative approaches for examination of topics to provide skills that are critical to perform research. Concurrently scheduled with course C285A. Letter grading.

C185B. Foundations of Environmental Health Sciences for Public Health Professionals. (2) Lecture/ seminar, two hours. Preparation: 4 units each of undergraduate chemistry and biology. Future environmental health and public health professionals need to understand vocabulary and systems issues related to local, regional, and global environmental factors affecting public health. Development of content knowledge and thought processes to effectively analyze environmental health problems and development, implementation, and leading of actions to address these problems. Supplements content presented in Public Health 200A and 200B and Environmental 100. Concurrently scheduled with course C200B. Letter grading.

C185C. Foundations of Environmental Health Sciences. (8) Lecture, four hours; project group, two hours. Enforced requisites: courses C185B. Multidisciplinary aspects of environmental health sciences in context of public health for environmental health majors. Concurrently scheduled with course C285C. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/N or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental read-
Graduate Courses

C200A. Foundations of Environmental Health Sciences. (4) Lecture, four hours. Preparation: one year of undergraduate biology and chemistry, introduction to field. Intended for health sciences graduate students pursuing MS, MPH, and PhD degrees. Examination of series of topics relevant to science of environmental and occupational health (e.g., climate change, ecology, microbiology, and toxicology) by introducing scientific basis from ecological perspective and describing how topics relate to health on a biochemical and molecular basis. Emphasis on scientific aspects: can critique of primary literature and quantitative approaches for examination of topics to provide skills that are critical to perform research. Concurrently scheduled with course C185A. Letter grading.

C200B. Foundations of Environmental Health Sciences for Public Health Professionals. (2) Lecture/ seminar, two hours. Preparation: 4 units each of undergraduate biology and chemistry, future environmental health and public health leaders should understand vocabulary and systems issues related to local, regional, and global environmental factors affecting public health. Development of content knowledge and thought processes to effectively analyze environmental health problems and development, implementation, and leading of actions to address these problems. Supplements content presented in Public Health 200A and Environment 100. Concurrently scheduled with course C185B. Letter grading.

C200C. Foundations of Environmental Health Sciences. (6) Lecture, four hours; group project, two hours. Enforced requisites: course C200A or C200B. Multidisciplinary course introducing environmental health sciences in context of public health for environmental health majors. Concurrently scheduled with course C185C. Letter grading.

C200D. Policy Analysis for Environmental Health Science. (4) Lecture, two hours; discussion, two hours. Designed for second-year Environmental Health Sciences MS and MPH students. Practice-focused synthesis and application of content from prior courses to analyze current environmental health policy issues. Students learn fundamentals of environmental health law, regulatory frameworks, communication strategy, working with community-based organizations, and policy analysis methods. Focus on environmental and occupational health and policy aspects of single case study. S/U or letter grading.

201. Seminar: Health Effects of Environmental Contaminants. (2) Seminar, two hours. Requisites: courses C200A or C200B and C200C. Emphasis on health effects of air, water, environmental pollutants on man and review of research literature. May be repeated for credit. S/U or letter grading.


203. Seminar: Ecotoxicology. (2) Seminar, two hours. Discussion of various topics in ecotoxicology. Topics vary from term to term and include aspects of environmental chemistry and ecology. May be repeated for credit. S/U grading.

204. Seminar: Exposure Assessment. (2) Seminar, two hours. Discussion of various topics in exposure assessment. Topics vary by term and include aspects of population activity, microenvironmental types of monitoring (outdoor, indoor, personal, biomarkers), and multimedia sources of exposure. S/U grading.

205. Environmental Health Sciences Doctoral Seminar. (2) Seminar, two hours. Limited to environmental health sciences doctoral students. Presentation of current research of environmental health sciences doctoral students. May be repeated for credit. S/U grading.

206. Seminar: Applied Coastal Ecology. (2) Seminar, two hours. Discussion of various topics in applied coastal ecology. Topics vary by term and include wetland ecology, restoration ecology, and ecology and management of coastal watersheds. May be repeated for credit. S/U or letter grading.

207. Introduction to Geographic Information Systems Systems. (4) Lecture, two hours; laboratory, two hours. Introduction to geographic information systems (GIS), including use of ArcGIS, QGIS, geocoding, and data analysis. S/U or letter grading.

208. Built Environment and Health. (4) Lecture, three hours; discussion, one hour. Limited to public health and urban planning graduate students. Interdisciplinary course in built and health and breaking down silos. U.S. and other developed, as well as developing, countries are facing increasingly lethal and costly epidemics of acute and chronic diseases related to land use and built environment decisions. While hazards presented by air and water pollution are well recognized for acute, infectious, and toxicological illnesses, there is increasing recognition of hazards presented by communities and designs that fail to recognize human health. Land use and built environment decisions impact every age group and social and racial minority. Impacts range from very acute (motor vehicle trauma) to long term (obesity, cancer, heart disease). Decisions have as their bases economic, financial, insurance, housing, and other factors. Analysis of each factor and related disease. S/U or letter grading.

209. Practical Applications in Environmental Health Sciences. (2) Lecture, two hours. Enforced requisites: courses C200A, C200B. Description of many leading environmental and occupational health problems that environmental health professionals face today, conducted as series of lectures, assignments, hands-on field exercises, and group projects, to help students develop skills that will allow them to integrate concepts across disciplines in field of environmental health. May satisfy some requirements needed to qualify for Registered Environmental Health Specialist (REHS) certification. S/U or letter grading.


211. Seminar: Practical Aspects of Biosafety and Biosecurity. (2) Seminar/discussion, two hours. Preparation: one year of introductory biology. Requisite: Microbiology 101 or 102. Designed for environmental health sciences graduate students and students in UCLA Biosafety Training Program. Interactive seminar with focus on critical concepts in practical and operational biosafety, biosecurity, risk assessment, and risk management that are needed for individuals wishing to serve as interns in UCLA bio-safety program and/or become biosafety professionals. S/U or letter grading.

214. Children’s Environmental Health: Prenatal and Postnatal. (4) Lecture, four hours. Preparation: one year each of chemistry and biology. Examination of how environmental exposures to chemical, physical, and biological agents during period of maturation (from fertilization to adulthood) cause pathophysiological perturbations in homeostasis at any stage during life. Letter grading.

215. Fundamentals of Health Impact Assessment. (4) Seminar and lab. Course provides understanding of health impact assessment (HIA) practice, its rationale and underlying principles, and opportunities to develop and apply HIA skills in work with public health agencies and other organizations. Focus on problem solving around case-study HIA’s and student experiences working on HIA-related projects. S/U or letter grading.

216. Planetary Health: Consequences of Environmental Change for Human and Non-human. Three hours. Planetary health is emerging interdisciplinary field that explores connections between environmental change and public health. Human-caused impacts on natural systems have subsequent effects on human health include changes in land use, food systems, biodiversity, air pollution, and water availability. Our ability to understand planetary health requires synthesizing information from diverse academic disciplines across spatial and temporal scales, including atmospheric and climate science, ecology, epidemiology, and policy. Students from environmental sciences and health sciences will learn how to interpret studies from scientific literature that discuss various aspects of planetary health, from drivers of environmental change to human health outcomes, integrated information across multiple fields, and communicate planetary health research through oral presentation and written report. S/U or letter grading.

M217. Graduate Seminar in Environmental Economics and Policy. (4) Same as Public Policy M217. Seminar, four hours. Preparation: undergraduate-level statistics, basic undergraduate microeconomics. Introduction to applied scholarship in environmental economics and policy. Students learn to become more proficient consumers and producers of social science research that explores questions of environmental policy and sustainability broadly construed. Topics include health and economic impacts of climate change, adaptation to climate change, efficient and equitable design of environmental policies (e.g., cap and trade, carbon taxes). Development of detailed empirical research proposal and short presentation. Letter grading.

218. Science Communication: Art and Practice of Science Storytelling. (4) Lecture, three hours. Students from environmental health sciences focus on communicating with diverse audiences through visual communication. Study of science of science communication and importance of narrative and storytelling to producing engaging science communication. Applying these skills to their own research interests, students develop two pieces of science communication, video and photo/infographic project. Through learning fundamentals of good public communication, students also advance their peer communication. S/U or letter grading.

219. Environmental Health Disparities. (4) Seminar, three hours. Designed for advanced graduate students who have completed foundational coursework in environmental health sciences. Exploration of disproportionate health burden experienced by low income communities and communities of color in U.S. due to environmental hazards. Study of social, economic, and political forces that create inequitable burdens of environmental pollution. Covers theoretical frameworks and analytic tools for understanding cumulative impacts of environmental and social inequities. Case studies illustrate multiple scientific and policy debates used to explore challenges and opportunities for addressing environmental racism and advancing environmental justice. S/U or letter grading.

220. Overview of Environmental Health Microbiology. (2) Lecture, two hours. Preparation: one course in biology, Introduction to environmental public health microbiology. Focus on human-disease-causing pathogens. Discussion of fungi, protozoa or protists, prions, and algae. Consideration of infectious diseases and of toxins produced by these microbes. Addresses how infectious agents interact with human immune system. Overview of this wide variety of microbial topics. S/U or letter grading.
221. Climate Change, Equity, and Health. (4) Lecture, two hours; discussion, two hours. Basic foundation in physical mechanisms of, responses to, and health implications of human-induced climate change. Exploration of variation of epidemiologic, risk assessment, and statistical methods used to understand impacts of climate change on health across diverse demographic groups; including efforts to estimate current and future variation of disease due to climate change, as well as avoidable and attributable risk. Elaboration of public health implications, positive and negative, of adaptation and adapt to climate change, including discussions of ethical, political, and economic aspects of these efforts. Emphasis on how adverse effects of climate change are borne disproportionately by people in low-resource settings. Students are responsible for leading class discussions and presenting posters on their choice of topic related to climate change and health. S/U or letter grading.

C225. Atmospheric Transport and Transformations of Airborne Pollutants. (4) Lecture, four hours. Preparation: one year of calculus, one course each in physics, organic chemistry, and physical chemistry. Designed for science, engineering, and public health students. Role of regional and long-range transport and atmospheric lifetimes and fates of airborne chemicals in phenomena such as photochemical smog, acid deposition, stratospheric ozone depletion, accumulation of greenhouse gases, and regional and global distribution of volatile toxic compounds. Concurrently scheduled with course C125. S/U or letter grading.

230A-230B-230C. Interdisciplinary Occupational Health Practice. (2–2–2) Seminar, one hour; fieldwork, one hour. Focus on global nature of occupational health practice featured and explored in these varied activity courses, including material related to recognition, prevention, surveillance, and management of work-related health problems that occupational health and safety researchers and professionals encounter in various work environments. Lectures, seminars, field exercises, workshops, clinical case conferences, and group assignments combined to help students develop skills necessary to integrate and communicate relevant approaches to occupational hazard detection and control, work-related injury and illness surveillance, and disease and disability prevention from different disciplines in field of occupational health and safety. S/U grading.

C235. Environmental Policy for Science and Engineering. (4) Lecture, four hours. Preparation: one year of calculus, one course each in physics, organic chemistry, and physical chemistry. For senior and graduate students. Examination of theoretical underpinnings of several major types of regulatory policy, as well as practical issues involved in implementing such policies. Emphasis is placed on strategic selection and impact of regulatory forms from variety of disciplines and viewpoints. Focus on traditional command and control regulation (including self-executing approaches), market-based regulation, and comprehensive market-based regulation (such as emissions trading), remediation, and emerging regulatory approaches such as management-based regulation and alternatives assessment. Issues of compliance and enforcement. Concurrently scheduled with course C135. Letter grading.

C240. Fundamentals of Toxicology. (4) Lecture, four hours. Preparation: one course each in biology, organic chemistry, and physics. Exposure assessment and science of toxicology, with emphasis on human species. Absorption, distribution, excretion, and transformation, as well as basic toxicologic processes and organ systems. Concurrently scheduled with course C140. Letter grading.

M241. Advanced Concepts in Gene-Environment Interactions. (4) (Same as Molecular Toxicology M247.) Lecture, three hours; discussion, one hour. Comprehensive and up-to-date coverage of state of science of gene-environment interaction. Discussion of primary components of field, including role of metabolic pathways in genetic and environmental response and importance of environmental influences in human disease. Exploration of selected hot topics infield, such as importance of epigenetics and of microbiome. S/U or letter grading.

C252D. Properties and Measurement of Airborne Particles. (4) Lecture, four hours. Preparation: one year each of chemistry, physics, and calculus. Basic theory of airborne particle science to environmental health, including properties, behavior, sampling, and measurement of aerosols and quantitative problems. Concurrently scheduled with course C152D. S/U or letter grading.

252E. Identification and Measurement of Gases and Vapors. (4) Lecture, three hours; discussion, one hour; outside study, two hours. Preparation: one year each of chemistry, physics, and calculus. Theoretical and practical aspects of gas sampling and measurement of gases and vapors. Letter grading.

252F. Industrial Hygiene Measurements Laboratory. (3) Laboratory, three hours. Corequisites: courses C252D, 252E. Limited to industrial hygiene majors. Laboratory for methods for sampling, measurement, and analysis of gases, vapors, and aerosols found in occupational environment. S/U or letter grading.

252G. Industrial and Environmental Hygiene Assessment. (4) Lecture, one hour; discussion, two hours; laboratory, two hours; outside study, four hours. Requisites: courses C200A, C200B, C252D, 252E. Environmental and industrial hygiene sampling strategies and assessment via walk-through surveys, lectures, discussion, actual field measurements, laboratory calibrations, and analyses and reports, with emphasis on chemical, physical, and ergonomic hazards. Letter grading.

253. Physical Agents in Work Environment. (2 to 4) Lecture, two hours; laboratory, two hours. Preparation: one year of physics. Physics, measurement methods, health effects, and control methods for radiation (ionizing and nonionizing), noise, and thermal stress in workplace environment. S/U or letter grading.

255. Control of Airborne Contaminants in Industry. (4) Lecture, two hours; laboratory, two hours. Preparation: one year of physics. Requisite: course C252D. Principles and applications of control technology to industrial environments, including general and local exhaust ventilation, air cleaning equipment, and respiratory protection. S/U or letter grading.

256. Biological and Health Surveillance Monitoring in Occupational/Environmental Health. (4) Lecture, three hours; discussion, one hour; assignments, three hours. Principles and applications of biological monitoring and health surveillance to assess occupational and environmental hazards to human health and to evaluate occupational and environmental toxicants that cause biologic and physical effects. Letter grading.


258. Identification and Analysis of Hazardous Wastes. (4) Lecture, three hours; discussion, one hour; laboratory, one hour; one field trip. Requisite: course C252E. Designed to define, identify, label, and quantify hazardous wastes and how workers should be protected. Provides critical understanding of all analytical aspects of hazardous waste analysis and regulation and practice of handling hazardous wastes. Letter grading.

259A. Occupational Safety and Ergonomics. (4) Lecture, four hours. Overview of most frequent and severe occupational injuries and illnesses, their distribution, causes, analysis methods, and control approaches, including low back pain, falls, machine exposures, upper extremity musculoskeletal disorders, fleet safety, and selected ergonomics topics. Letter grading.

259B. Workplace Safety. (2) Lecture, two hours. Introduction to broad range of topics in workplace safety through lecture and class participation. Emphasis on class participation, metrics, control philosophy, and control methods. Specific topics include traditional safety topics, such as fall hazards, machine safety, and fire hazards. Introduction to concepts of safety culture and philosophy. Review and presentation of peer-reviewed articles on topics relevant to course material. Letter grading.

M260. Occupational Epidemiology. (4) (Same as Epidemiology M261.) Lecture, three hours. Requisites: Epidemiology 100; for Epidemiology majors, Epidemiology 200A, 200B, 200C. Methodological considerations, approaches, and limitations in epidemiological studies of occupational and environmental groups and environments. S/U or letter grading.


C264. Fate and Transport of Organic Chemicals in Aquatic Environment. (4) Lecture, four hours. Preparation: bachelor’s degree in science, engineering, geophysics, chemistry, biology, or public health. Evaluation for advanced studies in topics regarding nanomaterial organic pollutants are distributed in aquatic environments. Study of mass transport mechanisms moving organic chemicals between phases, biological transformation and accumulation, and chemical reactions. Effect of humic substances on these processes. Concurrently scheduled with course C164. S/U or letter grading.

M270. Work and Health. (4) (Same as Community Health Sciences M278.) Lecture; three hours; practicum, one hour. Recommended preparation: graduate-level methods/statistics course, basic epidemiology and biostatistics. Examination of impact of work on physical and psychological health in context of newly emerging discipline. Focus on psychosocial models, measurement (including hands-on experience), contextual factors (gender, ethnicity, social class), and how work stressors can be ameliorated. S/U or letter grading.

280. Nanomaterial-Related Emerging Technologies: Exposure and Health Effects. (4) Seminar, three hours; activity, one hour. Students gain understanding of exposure and health effects of nanomaterials and related technologies, and of approaches to control exposure risks to workers and public. Students develop founda- tion for advanced studies in topics regarding nanomaterial-related emerging technologies. Topics include nano- and advanced materials and their developments; electronic products containing toxic substances and nanomaterials and their enabled products, their liability and regulatory compliance; exposure issues related to these materials and products throughout life cycle, including occupational and environmental perspectives; assessment and control of harms in humans from exposure intakes to post-exposure effects. S/U or letter grading.


375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Following teaching apprentice guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.
400. Field Studies in Environmental Health Sciences. (4) Fieldwork, to be arranged. Field observation and studies in selected community environmental health settings. Students must file field placement and program training documentation on form available from Student Affairs Office. May not be applied toward MS minimum course requirement; 4 units may be applied toward BS-unit minimum total required for MPH degree. Letter grading.

401. Environmental Measurements. (4) Lecture, two hours; laboratory, four hours. Requisites: courses C200A, C200B, Chemistry 20A, 30AL. Instrumental methods for laboratory and field applications to assess quantity of environmental pollutants in air, food, and water, and to assess degree of exposure to such factors as noise and radiation. Letter grading.

410A. Instrumental Methods in Environmental Sciences. (4) Lecture, four hours; discussion, two hours; other, two hours. Preparation: one year each of physics, chemistry, and biology. Theory and principles of instrumental methods through lectures and group discussions. Letter grading.

410B. Instrumental Methods Laboratory in Environmental Health Sciences. (4) Lecture, one hour; discussion, one hour; laboratory, four hours; other, two hours. Preparation: one year each of physics, chemistry, and mathematics. Requisites: courses C200A, C200B. Laboratory techniques and instrumentation used in preparation and analysis of biological, environmental, and occupational samples. Letter grading.

411. Environmental Health Sciences Seminar. (2) Seminar, two hours. Required of graduate environmental health sciences students for one term each year. Current topics in environmental health in science, policy, and leadership. Letter grading.

414A. Research Methods and Effective Communication in Environmental Health Sciences. (2) Lecture, two hours. Prepares doctoral students in environmental health sciences and related fields for skills needed to undertake dissertation. Skills including performing literature searches, designing research study, proposing specific aims, forming testable hypotheses, completing Institutional Review Board (IRB) application, choosing data collection methods, data management, analysis, and interpretation; and writing research proposal. Students complete pilot research proposal for submission for funding. S/U or letter grading.

414B. Research Methods and Effective Communication in Environmental Health Sciences. (2) Lecture, two hours. Prepares doctoral students in environmental health sciences and related fields for skills needed to undertake dissertation. Skills including performing literature searches, designing research study, proposing specific aims, forming testable hypotheses, completing Institutional Review Board (IRB) application, choosing data collection methods, data management, analysis, and interpretation; and writing scientific paper and presenting research results. Students complete manuscript for submission to peer-reviewed journal. S/U or letter grading.

450. Case Studies in Regulatory Decision-Making: How Government Agencies Are Influenced to Delay Abatement of Local Health Threats. (2) Seminar, two hours. Requisites: course C200A or Public Health 200A or equivalent. Examination of process in which regulatory decisions are made. Review of several case studies in which industrial operations resulted in discharge of toxic chemicals to air, soils, or surface waters, and the subsequent health of adjoining community; this is common scenario for which California’s health-protective regulatory policy was designed. Through review of response of state and local agencies in these cases, examine extent to which private interests can influence regulatory decisions, rendering process ineffective in abating health threats, especially in some of California’s most vulnerable communities. As practitioners in public health, consideration of how framing of complex regulatory decision in public health terms can be vital to gaining support of policymakers and public. S/U or letter grading.

454. Health Hazards of Industrial Processes. (4) Lecture, two hours; field trips, four hours. Requisite: course 255. Industrial processes and operations and occupational health hazards that arise from them. Letter grading.

461. Water Quality and Health. (4) Lecture, three hours; discussion, one hour. Requisites: courses C200A, C200B, 401. Introduction to water quality, with coverage of hydrology, water chemistry, and various chemical contaminants that may affect human health. Various treatment methods and health implications. S/U or letter grading.


495. Teacher Preparation in Environmental Health Sciences. (2) Seminar, two hours. Preparation: 18 units of cognate courses in area of specialization. May not be applied toward master’s degree minimum total course requirement. May be repeated for credit. S/U grading.

510. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. Limited to graduate students. Individual studies under direct faculty supervision. Only 4 units may be applied toward MPH and MS minimum total course requirement. May be repeated for credit. S/U or letter grading.

550. Preparation for Master’s Comprehensive or Doctoral Qualifying Examinations. (2 to 8) Tutorial, to be arranged. Limited to graduate students. May not be applied toward any degree course requirements. May be repeated for credit. S/U grading.

559. Doctoral Dissertation Research. (2 to 10) Tutorial, four hours. May not be applied toward any degree course requirements. May be repeated for credit. S/U grading.

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Overview
Epidemiology is the study of the distribution and determinants of disease in human populations. Epidemiologists study variations of disease incidence in relation to factors such as age, sex, race, environmental factors, lifestyle, demographic variables, occupational and social characteristics, place of residence, susceptibility, exposure to specific agents, or other pertinent characteristics. All of concern are the temporal and special distribution of disease, examination of trends, and intervals between exposure to causative factors and onset of disease. The scope of the field extends from study of the patterns of disease to the causes of disease with the goal of the control or prevention of disease. What distinguishes epidemiology from other clinical sciences is the focus on health problems in populations rather than in individuals, with the focus on public health.

Epidemiology is a young field with constantly expanding boundaries. The range of activities includes identifying determinants of population health, investigation and control of disease outbreaks, study of environmental and industrial hazards, evaluation of preventive or curative programs or treatments, and evaluation of the effectiveness and efficiency of intervention or control strategies. Many tools of epidemiology are shared with other fields such as microbiology, immunology, medicine, statistics, demography, and medical geography.

There is a growing core of epidemiologic methodology that includes the principles of study design and conduct, and statistical methods. Epidemiologic tools have become relevant for many other fields that study groups of people, e.g., genetics and epigenetics, global health, pharmacology, medicine, and many others.

Epidemiologists work in many settings, including academia, international health agencies, state and local health departments, federal government agencies and health programs, health maintenance organizations, and numerous research projects privately and publicly sponsored.

Mission
The objectives of the Department of Epidemiology fall into three broad categories—research, teaching, and community service.

Graduate Major
Epidemiology MS, PhD
Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Epidemiology
Lower-Division Courses
19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of epidemiologic themes and topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses
100. Principles of Epidemiology. (4) Lecture, four hours; discussion, two hours; preparation; one full biological sciences course. Limited to nonmajors. Not open for credit to students with credit for course 120. Introductory course to provide qualified undergraduate students with broad and comprehensive overview of concepts of epidemiology including evaluating public health problems in terms of magnitude, person, time and place; critical epidemiologic studies; identifying and accessing key sources of data for epidemiologic assessment; using epidemiologic methods and calculating basic epidemiologic measures for operational purposes; and communicating basic principles of epidemiology such as definitions of populations, sources of bias, causation, mortality, morbidity, and protective factors, and basics of study design. Letter grading.

120. Epidemiology in Public Health. (5) Lecture, four hours; discussion, two hours; requisites: Public Health 50B. Limited to public health majors. Not open for credit to students with credit for course 100. Introductory to main principles of epidemiology, including foundational concepts and terminology, and exploration of key historical developments of field. Survey of major study designs and statistical techniques with emphasis on application of epidemiologic concepts in public health. Letter grading.

CM175. Terrorism, Counterterrorism, and Weapons of Mass Destruction: Practical Approach. (5) Same as Honors Collegium M175.) Seminar, three hours. Terrorism, its origins, and ways of addressing terrorism at local, national, and global levels. Guest speakers from variety of UCLA departments and from Los Angeles. Concurrently scheduled with course C275. P/NP or letter grading.

188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced coursequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.


188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced requisite: course 188SB. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE 88S course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

197. Individual Studies in Epidemiology. (2 to 4) Tutorial, four hours. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses
200A. Methods I: Basic Concepts and Study Designs. (6) Lecture, three hours; discussion, one hour. Introduction of basic concepts and methods in epidemiology with emphasis on measuring disease occurrence, study design, and assessing causal relationships. Letter grading.

200B. Methods II: Prediction and Validity. (6) Lecture, six hours; discussion, four hours. Enforced requisites: course 200A and Biostatistics 100A, or Public Health 200A and 200B. Corequisite: Biostatistics 100B. Introduction to basic concepts, principles, and methods of chronic and infectious disease epidemiology. Letter grading.


M203. Topics in Theoretical Epidemiology. (4) (Formerly numbered 203.) Same as Health Policy M201.) Lecture, three hours. Emphasis on methods that help to understand how systems operate and how to intervene on them. Exploration of how to characterize human-centered problems that arise, and how to handle complexity as core design and development challenge. Examination of different traditions of studying and modeling (representing) systems, both conceptually and quantitatively, to address questions that arise in public health. Consideration of utility and limitations of these methods for providing insight to stakeholders who are addressing population health problem. S/U or letter grading.


205. Methods for Analyzing Non-Randomized and Marginalistic Experimental Studies. (4) Lecture, three hours. Requisites: course 200C or 401, or Biostatistics 200A or 200B or 406, and course M403 or 407A or Biostatistics 203A. Provides students with necessary tools to evaluate effectiveness or impact of public health interventions. Study designs include non-randomized, quasi-experiments, and natural experiments. Covers both theoretical concepts as well as practical tools that encompass methods borrowed from related fields including social epidemiology, health policy, econometrics, and evaluation research. These methods include instrumental variable, difference-in-difference, synthetic control, regression discontinuity, and propensity score matching. S/U or letter grading.

206. Systems Science Modeling and Simulation in Epidemiology. (4) Lecture, three hours. Requisites: course 200C or 401, or Biostatistics 200A or 200B or 406, and course M403 or 407A or Biostatistics 203A. Theoretical and practical introduction to modeling and simulation methods for conducting comparative, cost-effectiveness, and forecasting research. These methods include population-level (e.g., Markov state-transition models and system dynamics) and individual-level (e.g., microsimulation and agent-based modeling) simulations. These methods are employed in a field sometimes referred to in statistical epidemiology or computational epidemiology. Multidisciplinary fields that use tools and techniques from computer sciences, econometrics, operations research, engineering, and epidemiology to better understand disease mechanisms or evaluate intervention effectiveness. S/U or letter grading.
207. Reproducibility in Epidemiologic Research. (4) Lecture, three hours. Requisites: courses 200A, 401 (or Biostatistics 100B or 200A and 200B), M403. Introduction to reproducibility in epidemiologic research. Students are exposed to tools for adopting practices to enhance reproducibility in their own research. Letter grading.

211. Statistical Methods for Epidemiology. (4) (Same as Biostatistics M211.) Lecture, four hours. Requisites: two terms of statistics (such as Biostatistics 100A, 100B). Requisites: courses 200B, 200C. Concepts and methods tailored for analysis of epidemiologic data, with emphasis on tabular and graphical techniques. Expansion of topics introduced in courses 200B and 200C and introduction of new topics, including principles of epidemiologic analysis, trend analysis, confidence interval determination, and sensitivity analysis. S/U or letter grading.

212. Statistical Modeling in Epidemiology. (4) Lecture, four hours. Preparation: two terms of statistics (three terms recommended). Recommended: course 250A or 251L. Principles of modeling, including meanings of models, a priori model specification, translation of models into explicit population assumptions, model selection, model diagnostics, hierarchical (multilevel) modeling, and letter grading.

215. Systematic Review and Meta-Analysis. (2) Lecture, two hours. Requisites: course 100 or 200A, and Biostatistics 100A, or Public Health 200A and 200B. Offers theoretical understanding of systematic review and meta-analysis of clinical trials and observational studies. Students learn how to conduct systematic literature search, assess quality of selected studies, identify sources of heterogeneity, conduct meta-analysis, and understand standards of reporting on meta-analyses. Offers practical training in meta-analyses and meta-regression using STATA software. Letter grading.

216. Applied Sampling. (4) (Same as Statistics CM248.) Lecture, three hours; discussion, one hour. Designed for upper-division and graduate students in social or life sciences and those who plan to major in Statistics. Topics include methods of sampling from finite populations, sources of sampling and estimation bias, and methods of generating efficient and precise estimates of population characteristics. Practical applications of sampling methods via lectures and hands-on laboratory exercises. S/U or letter grading.

217. Social Networks and Public Health. (4) Lecture, four hours. Requisites: course 200B or 200A, or Biostatistics 200A and 200B. Principles of social network research, composition and size, and social network intervention, especially in relation to public health and health behavior. Coding examples are provided in R (mainly R graph and igraph2 packages). Discussion of land use, international network papers relevant to public health. S/U or letter grading.

218. Questionnaire Design and Administration. (4) (Same as Community Health Sciences M218.) Lecture, four hours. Requisites: courses 200B and 200C, or Community Health Sciences 211A and 211B. Design, testing, field use, and administration of data collection instruments, with particular emphasis on questionnaire design. Letter grading.

219. Strategies for Increasing Sensitivity and Validity of Epidemiologic Studies. (2) Lecture, two hours. Requisite: course 100 or Public Health 200A. Discussion of strategies for increasing sensitivity and validity of epidemiologic studies. Covers issues that led to methodologic articles authored by instructor; nature of articles themselves; subsequent studies that have used suggested approaches; and any modification of methods that have been proposed. Students are expected to have basic training on epidemiological study designs and methods. S/U or letter grading.

220. Principles of Infectious Disease Epidemiology. (4) Lecture, three hours. Requisite: course 100 or 200A, or Public Health 200A and 200B. Ascertainment of infection, transmission, and epidemiologic parameters rather than clinical and pathological aspects. Specific diseases discussed in depth to illustrate epidemiologic principles. S/U or letter grading.

221. Emerging Infectious Diseases. (4) Lecture, three hours. Requisite: course 220 or consent of instructor. Emerging infectious diseases (EIDs) are infections that have appeared or whose incidence or geographic range is rapidly increasing or threatens to increase in future. Overview of important emerging and re-emerging infectious diseases globally. Addresses factors associated with disease emergence/re-emergence, research methods, disease emergence, disease surveillance, outbreak investigation, and response to EIDs with global perspective. Letter grading.

226. Global Health Measures for Biological Emergencies. (4) (Same as Ecology and Evolutionary Biology M226.) Lecture, four hours. Requisite: course 220. Mitigation of bioterrorism falls outside traditional public health programs and public health graduate education. Because of seriousness of such threats, it is important that individuals trained in public health understand problems and responses. Letter grading.


228. Biology of HIV. (4) Lecture, three hours. Preparatory to two biology courses. Requisites: course 100 and Biostatistics 100A, or Public Health 200A and 200B. Overview of virologic and immunologic aspects of HIV disease for epidemiology or other health disciplines. Brief discussion of clinical manifestations and bio-safety in laboratory. Letter grading.

230. Epidemiology of Sexually Transmitted Diseases. (4) Lecture, four hours. Requisite: course 100 or 200A, or Public Health 200A and 200B. Sexually transmitted diseases; medical/biological aspects, epidemiology and control in developed and developing countries. S/U or letter grading.

231. Principles of Control of Infectious Diseases. (4) Lecture, three hours. Comprehensive study of tools for control of infectious diseases and application of these tools in public health programs to achieve epidemiologic impact on disease reduction, elimination, or eradication. S/U or letter grading.

232. Methods in Research of Marginalized and Hidden Populations. (2) Lecture, two hours. Requisite: course 100 or 200A, or Public Health 200A and 200B. Overview of methods of collecting data in situations for which standard methods are unsuitable. Letter grading.

240. Cardiovascular Epidemiology. (2) Lecture, two hours. Topics include definition, pathogenesis, descriptive epidemiology, magnitude of risk factors, strategies for prevention, lipoprotein metabolism, and epidemiology of diabetes, hypertension, and chronic lung disease. Letter grading.

241. Epidemiology of Obesity and Diabetes. (4) Lecture, three hours. Requisite: course 100 or 200A or Public Health 200A and 200B. Epidemiology of obesity and diabetes. Students are exposed to most important research in this area. Focus includes global and regional epidemic of obesity and diabetes, risk factors and complications, classifications and assessment, prevention and management, as well as methodological issues related to study design and measurement for conducting obesity and diabetes research. Large hands-on component in the form of GIS, a student’s creative thinking and improves their skills for scientific writing and oral communications through individual and team assignments. S/U or letter grading.


245. Lifestyle Intervention for Noncommunicable Chronic Diseases. (2) Lecture, two hours. Requisites: course 242 or 243. Emphasis on need to teach students how to apply principles of trial design and data analysis to lifestyle interventions for purposes of preventing onset and progression of diseases focus on noncommunicable chronic diseases (i.e., obesity, diabetes, hypertension, coronary heart disease, or cancer), but concepts and methods can be applied to acute and infectious diseases as well. S/U or letter grading.


247. LifeCourse Epidemiology. (4) Lecture, three hours. Requisites: courses 100A, 100B, 200A, 200B, and Biostatistics 100A, or Public Health 200A and 200B; and Biostatistics 100B, or equivalent, or consent of instructor. Introduction to concepts and methods for studying life-course determinants of health and disease. Consideration of how exposures at one stage of human lifespan influence health outcomes at multiple life stages. Analytical approaches to research on life-course determinants of health. S/U or letter grading.

249. Genetic Epidemiology I. (4) Lecture, two hours. Preparation: at least one course in epidemiology, biostatistics, and genetics. Basic concepts in emerging field of genetic epidemiology, with principal focus on genomics of complex diseases. Understanding of genetic contributions to disease, identifying genes, and characterizing their main effects and interactions with environmental factors. S/U or letter grading.

254. Nutritional Epidemiology. (2) (Same as Community Health Sciences M254.) Lecture, two hours; discussion/laboratory exercise, one hour. Preparation: introductory biostatistics and epidemiology courses. Review of all aspects of contemporary nutrition science that are required to develop knowledge of the scientific basis for dietary recommendations and other dietary practices. Letter grading.

256. Environmental Epidemiology. (2 or 4) Lecture, three hours. Requisites: course 100A, or Public Health 200A and 200B. Environmental epidemiology methods applied to evaluation of public health hazard. Topics include air pollution, pesticides, drinking water contaminants, use of GIS. Review of recently completed environmental studies published in peer-reviewed literature. S/U or letter grading.

265. Epidemiologic Methods in Occupational and Environmental Health. (4) Lecture, three hours. Introduction to epidemiologic methods applied to evaluation of health outcomes of occupational and environmental hazards, including study design, exposure assessment, and statistical techniques commonly encountered in research focused on assessing adverse health effects resulting from occupational and environmental exposures. Includes case-control, cohort, meta-analysis, risk assessment, and policy development. Illustrated by case studies, with focus on techniques to critically evaluate and interpret current literature. Letter grading.

266. Global Health and Tropical Medicine. (4) Lecture, four hours. Introduction to tropical diseases and global health. How humanitarian health issues, material- and health-related factors interact to influence the current health status of the world, and how health organizations, and political/medical constraints all are related with respect to health on worldwide scale. Letter grading.

267. Methodologic Issues in Reproductive Epidemiology. (2) Problems, examination hours. General discussion of methodologic issues important to epidemiologic studies of reproductive outcomes, including fertility, low birth weight, prematurity, birth defects, pregnancy loss, and behavioral risk factors. Focus on approaches to conceptualization, study design and exposure assessment and identification of potential sources of bias illustrated through review of recent studies published in literature and with particular focus on the analysis of nonrandomized and nonexperimental exposure and birth cohorts. S/U or letter grading.

268. Introduction to Pharmacoepidemiology. (2) Lecture, two hours. Requisites: course 100 or 200A, or Public Health 100A or 100B or equivalent. Introduction to pharmacoepidemiology is application of epidemiologic knowledge, reasoning, and methods to study of effects and uses of drugs. Survey of contemporary roles of pharmacoeconomic evaluation of drug development and use in healthcare, with historical background of its evolution and projections of future prospects. S/U or letter grading.

269. Substance Use Epidemiology. (4) Lecture, three hours. Requisites: course 200A, and Biostatistics 100A or 100B or equivalent. Introduction to epidemiology of substance use and substance use disorders within public health paradigm. Review of drug policy in U.S., description of occurrence of substance use and-related problems, examination of intersection of substance use and mental health disorders, and examination of role of epidemiology in informing and evaluating interventions targeting substance use disorders, including prevention and treatment pharmacologic and nonpharmacologic treatments. S/U or letter grading.

270. Behavioral Epidemiology. (4) Lecture, four hours. Requisites: course 100, or 200A, or Public Health 200A and 200B. Introduction to range of different methodologic approaches used in conduct analysis of behaviors studied in epidemiology research. How to collect, analyze, and interpret data on behaviors that can be associated with disease outcomes, including methods to collect survey data (i.e., design of questionnaires, interviewing techniques, use of technology to collect data) and methods to collect and analyze qualitative data (e.g., ethnographic interviews, focus groups, systematic observations). Overview information on epidemiology of key behavioral factors affecting human health, including sexual risk behaviors, substance use, physical activity, and healthcare utilization. S/U or letter grading.

271. Psychiatric Epidemiology. (4) Lecture, three hours. Requisites: Biostatistics 100B, Public Health 200A, 200B. Psychiatry epidemiology examines occurrence and distribution of mental illness and disorder and probable causes and factors that influence manifestation, trajectory, and outcome. Provides students with knowledge and skills necessary to conceptualize mental health-related research questions, property assess mental health symptoms and diagnostic classifications in their research (e.g., prevalence, incidence, and outcome), and analyze data to advance field of psychiatric epidemiology. Emphasize better understanding and ability to establish mental health and substance use treatment guidelines. With respect to measurement, emphasis is given to issues of reliability and validity in studying such disorders—while considering factors such as gender, sexuality, race/ethnicity, age, poverty, education, culture, social support, social capital, etc. S/U or letter grading.

272. Social Epidemiology. (4) Same as Community Health Sciences M272) Lecture, two hours; discussion, one hour. Requisites: course 100 or Public Health 200A and 200B. Relationship between sociocultural, and psychosocial factors in the etiology, occurrence, and distribution of morbidity and mortality. Emphasis on lifestyles and other sociocultural-environmental factors associated with general susceptibility to disease and subsequent mortality. Letter grading.

273. Responsible Conduct of Research in Global Health (Same as Community Health Sciences M273) Lecture, two hours. Requisite: Community Health Sciences 200. Introduction to fundamental principles of public health ethics, current ethical procedures, guidelines, and requirements, and ethical issues facing public health professionals working in developing countries. History of public health issues, unique ethical issues of research in developing countries, analysis of ethical implications of informed consent, responsibility to study community, mechanisms of study approval, role of funders, and role and responsibilities of review boards. S/U or letter grading.

274. Advanced Epidemiologic Methods for Global Health. (2) Lecture, two hours. Requisites: courses 200A, and Biostatistics 100B, or Public Health 200A and 200B. Study provides global health research scientists with new methods for analysis of new data; and advanced methods for statistical analyses focusing on existing sources of data, surveys, data sharing, and advanced statistical and epidemiologic methods in global health. S/U or letter grading.


291. Seminar: Special Topics in Epidemiology. (2) Seminar, two hours. Requisite: course 100 or 200A, or Public Health 200A and 200B. Review of current epidemiologic research contained in recent medical literature. May be repeated for credit. S/U or letter grading.


293. International HIV/AIDS Seminar. (2) Seminar, two hours. Requisite: course 200A, 200B, and Biostatistics 100B, or Public Health 200A and 200B. Study provides global health research scientists with new methods for analysis of new data; and advanced methods for statistical analyses focusing on existing sources of data, surveys, data sharing, and advanced statistical and epidemiologic methods in global health. S/U or letter grading.


299. Global Health and Tropical Medicine. (4) Lecture, three hours. Requisites: course 200, or Public Health 200A, 200B. Study provides global health research scientists with new methods for analysis of new data; and advanced methods for statistical analyses focusing on existing sources of data, surveys, data sharing, and advanced statistical and epidemiologic methods in global health. S/U or letter grading.

300. Field Studies in Epidemiology. (4) Fieldwork, to be arranged. Field observation and studies in selected community organizations for health promotion or medical care. Students must file field placement and program training documentation on form available from Student Affairs Office. May not be applied toward MS minimum course requirement; 4 units may be applied toward 44-unit minimum total required for MPH degree. S/U or letter grading.

401. Applied Epidemiologic Analysis. (4) Lecture, three hours. Requisites: course M403, Biostatistics 100B, Public Health 200A, 200B. Combines lectures, discussions, and laboratory assignments to offer conceptual understanding of analytic methods in epidemiology. Students develop basic proficiency in methods by conducting statistical analysis using epidemiologic software, with emphasis on courses 200A and 200B in second year and develop expertise in methods they will use for their own research. S/U or letter grading.

M403. Computer Management and Analysis of Health Data Using SAS. (4) (Same as Biostatistics M403B) Lecture, two hours; laboratory, two hours. Introduction to practical issues in management and analysis of health data using SAS programming language. Focus on data management and analysis, data sets, and data management systems. Common issues and solutions in data management, including data manipulation, extraction, presentation, data definitions, unique subject identifiers, and nonstandard data formats. S/U or letter grading.

407. Epidemiologic Research Using R. (4) (Formerly numbered 407A) Lecture, three hours. Requisite: course 100 or 200A, or Public Health 200A and 200B, or consent of instructor. Designed to broadly offer R coding experience, with emphasis on data management, visualization, and analysis. Topics include data management, data manipulation, and requirements, and ethical issues facing public health professionals working in developing countries. History of public health issues, unique ethical issues of research in developing countries, analysis of ethical implications of informed consent, responsibility to study community, mechanisms of study approval, role of funders, and role and responsibilities of review boards. May be repeated for credit. S/U or letter grading.

408. Applied Epidemiologic Research Using R. (2) Lecture, two hours. Requisite: course 407A. Designed to broadly offer R coding experience, with emphasis on data management, data description using tables and figures, and data analysis. Introduction of various concepts with data to facilitate interactive learning through guided R programming exercises. Weekly R data analysis, in which students present their research and data analysis progress using real data. Each student performs secondary data analysis and prepares abstract, brief introduction, methods, and results part of submitted brief communication paper. S/U or letter grading.


412. Public Health Surveillance. (2) Lecture, two hours. Requisites: course 100 or 200A, and Biostatistics 100A, or Public Health 200A and 200B. Overview of public health surveillance methodology, including (1) design, implementation, and evaluation of surveillance systems, (2) analysis and interpretation of surveillance data, and (3) application of methods to specific health-related outcomes. S/U or letter grading.

413. Methods of Scientific Communication. (2) Lecture, two hours. Requisites: course 100 or 200A. Principles of scientific writing, revising, and proofreading. Approaches to developing effective written, oral, and visual presentations of epidemiologic research findings.
Communication issues arising in conduct of research, including informed consent process. S/U or letter grading.

420. Field Trials of Health Interventions in Low-Resource Settings. (4) Lecture, four hours. Requisite: course 100 or 200A, or Public Health 200A and 200B. Introduction to practical concepts and issues in conducting epidemiologic field research in developing countries, including formulating research questions, study site selection, ethical considerations, and logistics of data and specimen collection. S/U or letter grading.

495. Teacher Preparation in Epidemiology. (2) Seminar, two hours. Preparation: 18 units of cognate courses in area of specialization. May not be applied toward master’s degree minimum total course requirement. May be repeated for credit. S/U grading.

501. Cooperative Program. (2 to 8) Tutorial, to be arranged. Preparation: consent of UCLA graduate advisor and graduate dean, and host campus instructor, department chair, and graduate dean. Used to record enrollment of UCLA students in courses taken under cooperative arrangements with USC. No more than 8 units may be applied toward master’s degree minimum total course requirement; may not be applied toward master’s degree minimum total course requirement. May be repeated for credit. S/U grading.

595. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. Limited to graduate students. Individual guided studies under direct faculty supervision. Only 4 units may be applied toward MPhil and MS minimum total course requirement. May be repeated for credit. S/U or letter grading.

597. Preparation for Master’s Comprehensive or Doctoral Qualifying Examinations. (2 to 12) Tutorial, to be arranged. Limited to graduate students. May not be applied toward any degree course requirements. May be repeated for credit. S/U grading.

598. Master’s Thesis Research. (2 to 8) Tutorial, to be arranged. Only 4 units may be applied toward MPhil and MS minimum total course requirement; may not be applied toward minimum graduate course requirement. May be repeated for credit. S/U grading.

599. Doctoral Dissertation Research. (2 to 12) Tutorial, to be arranged. May not be applied toward any degree course requirements. May be repeated for credit. S/U grading.

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**ETHNOMUSICOLEGY**

_Herb Alpert School of Music_

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Los Angeles, CA 90095-1657

**Ethnomusicology**

310-825-8381

Roger W.H. Savage, DPhil, Chair

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**Faculty Roster**

**Professors**

Cheryl L. Keyes, PhD
Mark L. Kligman, PhD (Mickey Katz Endowed Professor of Jewish Music)
Steven J. Loza, PhD
Anna F. Morcom, PhD (Mohindar Brar Sambhi Endowed Professor of Indian Music)
Helen M. Rees, PhD
Roger W.H. Savage, DPhil
Timothy D. Taylor, PhD

**Professors Emeriti**

Tara C. Browner, PhD
Jacqueline Cogdeil Dje Dje, PhD
Charlotte A. Heth, PhD

William R. Hutchinson, PhD
Daniel M. Neuman, PhD (Mohindar Brar Sambhi Endowed Professor Emeritus of Indian Music)
James W. Newton, Jr.
James W. Porter, MA
Timothy Rice, PhD
Hiromi Lorraine Sakata, PhD
Anthony Seeger, PhD

**Associate Professors**

Münir N. Beken, PhD
Katherine In-Young Lee, PhD

**Lecturers**

Francis Kofi Akotuaah
Marc T. Bolin, PhD
David M. Bragger
Jésus A. Guzmán
Pejman Hadadi, BA
Gamin Kang, DMA
Behzad Nadimi
Soheil Nadimi, BA
Rahul D. Neuman
Robert F. Reigle, PhD
Diane L. White-Clayton, PhD

**Adjunct Professors**

Amy R. Catlin-Jairazbhoy, PhD
Abhimana Kaushal
Chi Li, BA
Maureen A. Russell, MLS, MA, CPhil

**Adjunct Associate Professor**

I Nyoman Wenten, PhD

**Adjunct Assistant Professor**

Supeena Insee Adler, PhD

**Overview**

Ethnomusicology involves the study of all kinds of music from all over the world, using a variety of disciplinary perspectives. The Department of Ethnomusicology, the largest and first of its kind in a U.S. university, offers courses that cover the music of virtually every region of the world and of many ethnic groups in the U.S., as well as courses on popular music and film music. Most courses combine an interest in music as an art form with questions about how musical art and practice relate to other aspects of culture, society, politics, and economics. Courses are also given on the philosophies and aesthetics of music. In addition to lecture courses, the department offers performance ensemble courses in several world and American music traditions. At the undergraduate level, most of the performance courses are open to nonmajors, and many academic courses target nonmajors; prior knowledge of music is not expected or required. The Ethnomusicology Department is aligned with the departments of Music and Musicology and aspires to promote productive collaboration between performance and scholarship, a cross-cultural global understanding of the art of music, and preparatory training for a broad range of careers in music after students graduate.

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**Undergraduate Major**

**Ethnomusicology BA**

The undergraduate major in Ethnomusicology emphasizes general world music, performance/composition, public ethnomusicology, and scholarly research. Admission requires an audition/ interview. The major provides students with a wide-ranging liberal arts education in music. At its core, this includes (1) comprehensive knowledge of music cultures of the world; (2) understanding of the interrelationship of music, society, and culture; (3) grounding in the basics of Western music theory and musicianship; and (4) the experience of playing in one or several musical ensembles from various traditions around the world.

Beyond the core and emphasis requirements, students in the world music concentration may, through elective courses, prepare for a variety of career goals, including the study of ethnomusicology in graduate school, composing and performing music, working in the music industry, serving society in the nonprofit sector, or becoming a K through 12 music teacher.

**Capstone Major**

The Ethnomusicology major is a designated capstone major. The capstone project is individualized to each student and requires a creative process either through music performance/composition, a research project, or an internship with a self-reflective journal detailing the process. Through that process, students are expected to demonstrate a broad knowledge base and competency in performance, writing, and/or composition and ability to apply knowledge and experience to the specific requirements of the capstone; conceive and successfully complete a project that is expressive of their specific interests and acquired expertise; and display, through written documentation or live presentation, the requisite communication and, in some cases, teamwork required by work in this field.

**Learning Outcomes**

The Ethnomusicology major has the following learning outcomes:

- Demonstrated broad knowledge and competency in performance, writing, and/or composition
- Demonstrated ability to apply knowledge and experience to capstone requirements
- Conception and successful completion of a project that is individually expressive of the student’s specific interests and acquired expertise
- Written document or live presentation that displays requisite communication and teamwork required by work in this field

**Entry to the Major**

**Admission**

Applicants are reviewed individually, based on a questionnaire, grade-point average, two letters of recommendation, test scores, a personal statement of purpose, and an on-campus...
interview/audition. Applicants who are unable to travel to UCLA have the option of a Skype interview/audition.

Requirements

Preparation for the Major

Required: Ethnomusicology M6A, M6B, M6C, with grades of C– or better; 20A, 20B, 20C, with grades of C or better; Music 20A, 20B, 20C, with grades of C or better; and 12 units of ethnomusicology world music performance organizations (courses 91A through 91Z), private instruction in music (course 92), and/or world music specializations (courses 68A through 68Z).

The Major

Required: Ethnomusicology 175 or 181, 183; 12 units from courses 161A through 161Z, 162, and/or 168A through 168Z; a minimum of eight upper-division ethnomusicology courses (32 to 36 units); and a capstone project in either (1) performance/composition, (2) public ethnomusicology, (3) scholarly research, or (4) other potential emphasis concepts in consultation with a faculty adviser.

Performance/Composition Capstone: Students must fulfill the capstone final project requirement (4 units) through a public recital (performance). Students must enroll in Ethnomusicology 199 (2 units) and pass a recital permission jury. Instrumental and vocal performers must present a portion of their recital performance, and composers must present excerpts from their recital scores in front of two faculty members. Students also enroll in Ethnomusicology 186 (2 units) during the term in which they perform their recital or their composition(s) are performed.

Public Ethnomusicology Capstone: Students must fulfill the capstone internship requirement, which consists of 8 units of Ethnomusicology 195B, in an institution approved by the faculty sponsor. Students must write a final research paper (at least 10 pages) at the completion of each internship.

Scholarly Research Capstone: Students must write a capstone thesis (25 to 30 pages) and enroll in Ethnomusicology 199 (2 units minimum) for at least one term while writing the thesis.

Independent Capstone: In consultation with a faculty adviser, students can propose capstone projects in other potential emphasis concepts such as technologies, film scoring, interactive arts, dance, and more. Students must enroll in Ethnomusicology 199 (2 units minimum).

Policies

Preparation for the Major

All entering first years are required to take the Music Theory Assessment Examination either during New Student Sessions or during zero week of fall quarter. The examination score is used to determine eligibility and placement in first-year music core courses (Ethnomusicology M6A, M6B, M6C, and Music 20A, 20B, 20C). Examination results may require enrollment in Music 3 as a requisite to both Ethnomusicology M6A and Music 20A. Entering transfer students with fewer than 15 units of prior music theory must take the Music Theory Assessment Examination.

Undergraduate Minors

Ethnomusicology Minor

The Ethnomusicology minor is designed for students who wish to augment their major program with a group of related courses that provide a systematic introduction to the study of world music and performance.

Admission

To enter the minor, students must have an overall grade-point average of 2.0 or better and be in good academic standing, have completed one lower-division course with a grade of C or better, and have successfully completed at least two (2) quarters of the same lower-division ensemble course (Ethnomusicology 91A though 91Z).

Optional Focus in Iranian Music: Students must select 91L as the lower-division ensemble course.

The Minor

Required Lower-Division Courses (9-10 units): Ethnomusicology 5 or M25, and one course from 7, 15, 30, M35, 40, 45, M50A, M50B, 60, M73, M110A, or M110B.

Required Upper-Division Courses (22 units): Ethnomusicology 101; three courses (6 units) from the same performance ensemble course numbered from 161A to 161Z; and three upper-division elective courses from the department. No more than one course from 195A to 199 may be applied to the minor.

Optional Focus in Iranian Music: Ethnomusicology C141, 142, 143, and three courses (6 units) of 161L.

Policies

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Major

Ethnomusicology MA, CPhil, PhD

The department offers MA and PhD degrees in Ethnomusicology, with a specialization in systematic musicology or music and anthropology. Both degree programs train students for future university teaching careers, as well as careers in library science and archiving, the music industry, public service, and music technology. The department provides fellowships, teaching assistantships, and research assistantships for qualified students.

Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Ethnomusicology

Lower-Division Courses

5. Music Around World. (8) Lecture, four hours; discussion, one hour; outside study, 10 hours. Overview of world’s musical traditions by selecting one or two case studies from each of nine musical world regions: Pacific, East Asia, Southeast Asia, South Asia, Middle East, Africa, Europe, Latin America, and U.S. and Canada. P/NP or letter grading.

M6A-M6B-M6C. Introduction to Musicology. (2–2–2) (Same as Music M6A-M6B-M6C and Musicology M6A-M6B-M6C.) Laboratory, four hours. Preparation: placement examination. Course M6A is enforced requisite to M6B, which is enforced requisite to M6C. Students must receive grade of C– or better to proceed to next course in sequence. Introduction to musicology through in-depth exploration of basic common musical elements and training in aural recognition, sight singing, dictation, and keyboard skills. Focus on topics such as tonal and modal harmony, rhythm, improvisation, composition, notation, and ear training to prepare students for later theory courses, participation in music ensembles, advanced study in music, and professional careers. Letter grading.

7. Introduction to Music and Culture of Iran. (4) Lecture, four hours. Examination of Persian music in historical, social, linguistic, and cultural contexts. Discuss-
22. Global Popular Musics II: From Cassettes to Digital and Online Media. (4, Lecture, four hours. Exploration of multipolar world of global pop beyond Western music traditions established in the early to mid-20th century. Examination of dramatic decentralization of media that took place with advent of cassette technology and explosion of new forms of popular music that are listened to on recordings as much as they are heard on the radio. Focus on the idea of how major pop genres are appropriated and localized in contexts both intended and unintended by their producers. Intensities of speed and scale, further and further distance from urban, industrial, and political centers of power. Exploration of how this loosening of central control makes quagmires of exploitation, piracy, and creativity in world of popular and recorded music. Development of Internet and social media. P/NP or letter grading.

M25. Global Pop. (5) (Same as Global Jazz Studies M25.) Lecture, four hours; discussion, one hour. Development of world music or world beat, including its meaning and importance to contemporary culture as well as its history and impact. P/NP or letter grading.


M35. Blues, Society, and American Culture. (5) (Same as African American Studies M35.) Lecture, four hours; discussion, one hour. Sociocultural history and survey of blues music tradition from its roots in West Africa to its emergence in African American oral culture, with emphasis on philosophical underpinnings and social and cultural influences of blues and its influence on development of country, jazz, gospel, rhythm and blues, rock, hip-hop music, and other mediums. P/NP or letter grading.

40. Music and Religion. (5) Lecture, four hours; discussion, one hour. Survey of music in religious rituals around world, covering music and ritual of Hinduism, Buddhism, Judaism, Christianity, and Islam, as well as religious traditions of Native Americans and syncretic religions in Americas such as African American gospel music, Brazilian Candomble, Cuban Santeria, and Haitian vodou. Letter grading.

45. Music of Bollywood and Beyond. (5) Lecture, four hours; discussion, one hour; outside study, 10 hours. History and development of South Asian film scores in their filmic context, especially omnipresent songs in those movies that distinctly characterize this genre. P/NP or letter grading.

46. India through Music. (5) Lecture, five hours; discussion, one hour; outside study, nine hours. Exploration of major aspects of society, history, and culture in India, as reflected in its rich musical culture. Introduction to as much diversity as possible, spanning villages to cities and global contexts; high- and low-brow musics; those spanning problematic categories of folk, classical, and popular; and those from powerful as well as oppressed and marginalized peoples. Music as lens to look more deeply into social and cultural world and to explore layers of history ranging form Persianate empires, British Empire, nationhood, and contemporary globalization. Highlights lines of power in particular, notably, those of caste, class, gender, colonialism, and nationalism. Minoritized and disenfranchised people and their music are as prominent as dominant styles and provide contextualization and critique. Letter grading.

M50A-B-C. World Music Performance Organizations. (2 each) Activity, three hours; outside practice, three hours. Performance of specializations in traditional vocal music, instrumental music, and dance. May be repeated for credit without limitation. P/NP or letter grading.

68A. Musical Ensembles and Orchestras. (4) Lecture, four hours. Conducting and instrumental music, with emphasis on the philosophical underpinnings and social and cultural contexts. May be repeated for credit without limitation. P/NP or letter grading.

68B. World Music Performance Organizations. (2 each) Activity, three hours; outside practice, three hours. Performance of specializations in traditional vocal music, instrumental music, and dance. May be repeated for credit without limitation. P/NP or letter grading.


80. Hebrew World Music: Theories and Practices. (5) Lecture, four hours. Conducting and instrumental music, with emphasis on the philosophical underpinnings and social and cultural contexts. May be repeated for credit without limitation. P/NP or letter grading.

91A-91Z. World Music Performance Organizations. (2 each) Activity, three hours. Group performance of traditional vocal and instrumental music of world cultures. May be repeated for credit without limitation. P/NP or letter grading. 91A. World Music Performance Organizations: American Indians. 91B. Music of Bali. 91E. Music and Dance of Ghana. 91G. Music of Japan. 91H. Music of...
Upper-Division Courses

C100. Audiospatial Archiving in 21st Century. (4) Seminar, three hours. Designed for Ethnomusicology majors. Examination of history, present state, and future of audiospatial archives, with specific focus on ethics, copyright, contracts, fieldwork, preservation, and access issues related to technology, space, budgets, and staffing. Concurrently scheduled with course C200. P/NP or letter grading.

101. Introduction to Ethnomusicology. (4) Lecture, four hours. Introduction to history of field of ethnomusicology, basic fieldwork and analysis methods, and current issues in research. Introduction also of career opportunities for ethnomusicology graduates. Letter grading.

M103. Creating Musical Community. (4) (Same as Global Jazz Studies M103, Music M103, and Musicology M103.) Seminar, four hours; discussion, one hour. Limited to school of music majors. Faculty and students make music together in different modes. Students learn to define it, and bring it to concert performance. Students critically engage musical literacies and notion of social contract that forms basis of musical notation. Drawing from American music folk game traditions, highlights complex history of this country and way in which entire body is used as resource when instruments are unavailable. Letter grading.

105. Music Business. (4) Lecture, four hours; outside study, eight hours. Designed for junior/senior Ethnomusicology majors and public ethnomusicology students. How music industry functions and how products are created, marketed, and consumed. Basic information on production of recording and legal issues faced by musicians, students, and scholars who use music in their work. P/NP or letter grading.

106A. Traditional North American Indian Music. (4) Lecture, three hours; discussion, one hour. Native American traditional music: its role in tribal societies, California, Southwest, Pacific Northwest, Northern and Southern Plains, Great Lakes/Eastern Woodlands, and Southeastern culture areas included. P/NP or letter grading.

106B. Contemporary North American Indian Music. (4) Lecture, three hours; discussion, one hour. Contemporary Native North American musical expression, including popular styles (folk, country, rock, western) and various forms of traditional contemporary choral music. Tracing development of this music from 1600s to present, African American choral music is medium performed a cappella or supplemented by keyboard accompaniment. May be repeated for credit without limitation. P/NP or letter grading.

92. Private Instruction in Music. (2) Studio, one hour. Limited to Ethnomusicology majors. Private or semiprivate music instruction with distinguished community-based musician, that must be arranged by students and approved by course instructor. May be repeated for credit without limitation. Letter grading.

99. Student Research Program. (1 to 2) Seminar, up to three hours per week, including laboratory work. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in major of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated, P/NP grading.

CM120. Bibliography and Research Methods in Rap Music/Hip-Hop Studies. (4) (Formerly numbered C120.) (Same as African American Studies CM110.) Seminar, three hours. Requisite: course M118. Designed for juniors/senior students interested in working on hip-hop in preparation for capstone projects such as honors or senior thesis. In-depth examination of intellectual history of rap music/hip-hop studies scholarship. Experiential learning of research methods in history of rap music scholarship and allied traditions (including breakdance and graffiti). Exploration of broad range of research methods in multi-disciplinary centers specific to hip-hop studies. Concurrently scheduled with course CM220. Letter grading.

121. Tibetan Pop Music: Tibet, Exile, China, and World. (4) Lecture, four hours. Pop music is key part of contemporary Tibet, emerging in 1980s in Tibet and exile, and even earlier if mass-diffused socialist songs of Tibet as compulsory, state-produced popular music is considered. Exploration of multifaceted world of Tibetan pop music in and of Tibet and Tibet within China. Of Mao Zedong and socialism, and that of market socialists from Deng Xiaoping to Xi Jinping. Exploration of ways in which Tibetan pop music is voice for Tibetans in Tibet, numerically small minority in China, and in small exile population. Focus on Tibetan pop music exposes students to plethora of issues relevant to music of small, minority, and stateless people, and of myriad political dimensions of the modern world: crude, subtle, social, and economic. Concurrently scheduled with course C221. P/NP or letter grading.

122. Global Dynamics of K-POP. (4) Lecture, four hours. Focused study on K-pop—South Korea’s most significant cultural export—devoted to understanding how global influences that have shaped Korean popular music in earlier decades and in turn, unprecedented global reach of K-pop in recent history. Study is divided into three units: connections between transnational flows in K-pop, and critical takes on K-pop. Each unit features distinctive case studies, and lectures draw out some of broader linkages between what are loosely termed as post-war and Cold War geopolitical formations and legacies, modern South Korean state and economy, and spread of Korean popular culture. Study draws on wide array of scholarly articles, journalistic pieces, music videos, webinars, and online resources while foregrounding larger issues that emerge through cultural analysis. P/NP or letter grading.

128. Exploration in Rhythms. (2) (Same as Global Jazz Studies M128.) Lecture, two hours; outside study, four hours. Preparation: ability to read melodic or rhythmic notation. Investigation and exploration of musical form and rhythm from 20th- and 21st-century classical, jazz, world, and popular music. Concepts explored include meter, pulse, rhythmic cycles, hemiolas, and polyrhythms. P/NP or Letter grading.

130. Culture of Jazz Aesthetics. (4) (Same as Anthropology M130 and Global Jazz Studies M130.) Lecture, three hours. Recommended requisite: course 20A or 20B or 20C or Anthropology 3 or 4. Aesthetics of jazz from point of view of musicians who shaped jazz as art form in 20th century. Listening to and interacting with professional jazz musicians who answer questions and give musical demonstrations. Analytical resources and historical knowledge of musicians and ethnomusicologists combine to interpret jazz as cultural tradition. P/NP or letter grading.

M131. Development of Latin Jazz. (4) (Same as Global Jazz Studies M131 and Music M131.) Lecture, four hours; discussion, one hour. Survey of historical and stylistic development of Latin jazz as art form referred to today as Latin jazz. P/NP or letter grading.

133. European Musics: Politics, Identities, Nationalisms. (5) Lecture, four hours; outside study, 12 hours. Lectures: Ethnomusicology on Music History, and European Studies majors. European folk, popular, and classical music as practice that shapes ideas about national, ethnic, class, and national identity and of political domination and resistance. Letter grading.

M134. Introduction to Armenian Music. (4) (Same as Armenian M134 and Music M134.) Lecture, three hours. Some amount of formal music study and experience as vocalist or instrumentalist desirable but not
essential. Introduction to history, tradition, and scope of music of Armenia. Focus on number of different genres and approaches, and interactions between music and culture, society, and history. P/NP or letter grading.

135. Indo-Persian Musical Cultures: Mapping Musical Connections. (4) Lecture, four hours. Study of connections between musical cultures of Indian subcontinent, Iran, and Central Asia. Exploration of different musical ideas, forms, theories, instruments, styles, lyrics, etc. that make visible cultural continuities across broad Indo-Persianate world. Connected histories developed in both regions and their peoples, and the role of music in defining identity and belonging. Readings include articles and book chapters on musical cultures of Central and South Asia. By exploring diversity of commonalities in Indo-Persian musical cultures, understanding of often hidden similarities across different ethnic, cultural, geographical, and political boundaries is enhanced. Study elucidates values, ideas, and goals that relate individuals and groups across different places and cultures. Letter grading.

136A. Music of Africa. (5) Lecture, four hours; discussion, one hour; outside study, 10 hours. Introduction to music of Africa through general discussion of select topics and related musical genres found throughout the continent, and its people. Focus on music of non-Western musicians, instruments, musical structure and related arts, and contemporary music. P/NP or letter grading.

136B. Music of Africa. (4) Lecture, four hours; outside study, eight hours. Introduction to music of various African cultures and regions. Through readings, lectures, lectures, viewing of films, and analysis of music, students gain greater understanding of diverse musical traditions found on African continent and become more cognizant of contributions that people of Africa have made to world music. Concurrently scheduled with course C236B. Letter grading.


141. Music of Turkey and Iran. (4) Seminar, three hours. Limited to junior/senior Ethnomusicology majors. Comparative study of music of Iran and other related areas, including Turkey, with particular reference to their regional background, sources of musical theory and practice, music theory and aesthetics, instruments, style, technique of improvisation, and contemporary practice. Concurrent participation in Near East performance ensemble (course 91N or 161N) required. Concurrently scheduled with course C241. Letter grading.

142. Music and Culture in Afghanistan and Central Asia. (4) Lecture, four hours. Survey of music of Afghanistan, Turkmenistan, Tajikistan, Uzbekistan, and Xinjiang, including traditional and popular styles. Examination of modal systems and specific music genres of these regions, and exploration of cultural context and communicative functions, forms, styles, instruments, and musical philosophies. Consideration of interrelationships between musical genres and other art forms (dance, theater, visual arts, and literature) and how they shape construction and interpretation of types of music in specific social, religious, political, social, and cultural contexts. Includes detailed introduction to musical terms and concepts throughout.

143. Musical Traditions around Iran: Baluchistan, Kurdistan, Azerbaijan, and Iraq. (4) Lecture, four hours. Introduction to selected types of music found in Iran with particular attention to Baluchistan, Kurdistan, Azerbaijan, and Iraq. Study of structures and genres of music in urban and rural communities. Examination of how music-making relates to aspects of current Middle Eastern life such as religious observance, gender relations, ethnic and national identity, and process of globalization. Letter grading.

144. Special Topics in Iranian Music. (4) Seminar, three hours. Requires: courses 5 or M25, and 8. Exploration of topics on musical cultures and styles in Iran focusing on specific sociopolitical contexts, sexuality and gender studies, politics and resistance, religion, and modern technologies. Examination of musical discourses and practices in Iran and in its multiple diasporas (particularly Los Angeles). Topics announced in advance. May be repeated for credit. P/NP or letter grading.

145. Analyzing Rhythm in Persian Music. (4) Seminar, three hours. Requires: courses 5 or M25, and 8. Examination of rhythm principles of Iranian music. Through theoretical and applied methods, exploration of experience of musical rhythm in Iran. Students learn various rhythmic functionalities in order to gain deeper understanding and appreciation for Iran’s traditional, folkloric, religious, and mystical musical styles. Examination of core rhythmic elements in Iranian music both through ethnomusicological literature on and by practicing Persian percussion in class. P/NP or letter grading.

146. Folk Music of South Asia. (4) Lecture, three hours, laboratory, one hour. Illustrated survey of some regional genres, styles, and musical instruments found in India and Pakistan, with special reference to religious, social, economic, and cultural context of their occurrence. P/NP or letter grading.

147. Survey of Classical Music in India. (4) Lecture, four hours. Examination of melodic, metric, and formal structures of Indian classical music in context of religious, social, economic, and geographical background of country. P/NP or letter grading.

148. Global and Local South Asian Popular Music. (4) Lecture, four hours, India, South Asia, and South Asian diasporas are home to vast array of popular musics. Bollywood (or Hindi film music) dates from 1940s to present day and has spread to countries as diverse as Ghana, Greece, Israel, and western world from 1950s. Older history of popular music in India delves into composition and performance in magistyre and traveling theatre, and global circulation of gramophone discs. With advent of cassettes, then CDs, VCDs, MP3s, and now online platforms, popular musics have proliferated. These include rustic vernacular styles like Bhojpuri pop; music of downtown groups such as Chamar pop or Gaana; Sufi popular music highlighting religious harmony; pop-style Hindi devotion to songs spiritual Hindustani pop. Popular musics have also emerged from South Asian diasporas, such as Chutney and Soca from Trinidad, or Bhangra from United Kingdom Punjab. P/NP or letter grading.

150. Music and Politics in East Asia. (4) Lecture, four hours. Limited to Ethnomusicology, Music, Music History, World Arts and Cultures, Chinese, Japanese, Korean, and East Asian Studies majors. Political imperatives have long had direct and often explicit impact on music sound and context in East Asia. Examination of interaction of ideology and musical practice in medieval Korea and in contemporary Korea, Japan, Taiwan, and China. Concurrently scheduled with course C250. Letter grading.

155. Intangible Cultural Heritage Worldwide. (4) Lecture, three hours. Designed for Ethnomusicology, Music History, and World Arts and Cultures majors. Through critical reading of publications by scholars, officials, and culture-bearers involved in intangible cultural heritage policy and practice, examination of history of heritage concepts of intangible and intangible heritage; pioneering roles of Japan, South Korea, and UNESCO in making intangible cultural heritage focal point of much cultural policy worldwide; tension between national ideal and internationalization, nationalism, ethnicity, and individuality in creating intangible cultural heritage policies in different settings; U.S. equivalents to intangible cultural heritages, such as other rural agricultural practices, roles of private individuals, community initiative, and professional organizations in cultural preservation schemes; and related concept of sustainability. Concurrently scheduled with course C255. Letter grading.

C156A-C156B. Music in China. (4–4) Letter grading. C156A. Lecture, four hours. Requires: course 20C. Limited to Ethnomusicology majors. Survey of traditional, popular, and Western-influenced musics currently widespread in China, including musical analysis of different genres; examination of contexts in which they exist. Investigation of profound effect of Confucian and Communist ideologies on music. Concurrently scheduled with course C256A. Lecture, three hours; laboratory, two hours. Requires: course C156A. Introduction to various notational systems. Analysis of representative works.


159. Music on China’s Periphery. (4) Lecture, four hours; outside study, eight hours. Designed for under-graduate Ethnomusicology, Music, Music History, and World Arts and Cultures majors. Study of musics from China’s border regions and neighboring countries: technical musical characteristics and important contemporary issues, interaction with modern and traditional styles from Mongolia, Uighurs of Xinjiang, Tibet, Tibet-Burman peoples, Hmong, and indigenous peoples of Taiwan. Concurrently scheduled with course C259. P/NP or letter grading.


161F. Advanced World Music Performance Organizations: African American Music Ensemble. (2) Activity, three hours; outside practice, three hours. Performance of diverse range of vocal repertoire including spirituals, gospel, freedom/Civil Rights songs, and other works by African-American composers, including anthems, hymn arrangements, and various forms of contemporary choral music. Tracing development of this music from 1600s to present, African American choral music is medium performed a cappella or with instrumental accompaniment. May be repeated for credit without limitation. Letter grading.

162. Advanced Private Instruction in Music. (2) Studio, one hour; outside practice, five hours. Preparation: two years of courses 91A through 91Z or 92. Limited to Ethnomusicology majors. Advanced private or semiprivate music instruction with distinguished composers and teachers changed by semester. Enrollment of students and approved by course instructor. May be repeated for credit without limitation. Letter grading.

163. Theory, Practice, and Improvement in Iranian Music. (4) Seminar, three hours. Requires: courses 5 or 8 or 10B. Designed for students from a wide background of experience, outlooks, and training to many facets of art and craft of improvisation in Iranian music. Examination of how organization of rhythm (collection of melodic figures regarding through oral tradition that provides basis of improvisation), master and disciple teaching and tutoring, shape improvisational and performance practices in Iranian traditional music. Comparison to number of related musical cultures: Arabic maqam, Turkish makam, and number of ragas from North Indian tradition. Includes in part workshop format in which stu-
dents are encouraged to bring their own musical instruments, or for vocalist to join in, in exploring radif.

Lecture, four hours; laboratory, three hours; outside study, six hours. Requisites: courses 20A, 20B, 20C. Limited to Ethnomusicology majors. Exploration of music in diverse global contexts. Examination of how social media are social in new ways, and how they offer new potentials (and new limitations and challenges) for music. Examination of rise of Web 2.0, and exploration of how social media affects music in relation to artistic and creative work, affect and experience, livelihoods and remuneration, and music industries. Examination of both utopian and dystopian descriptions in course with music, Internet, and social media; and exploration of potential for marginalized people, as well as for corporate and political control. P/NP or letter grading.


181. Anthropology of Music. (4) Lecture, four hours. Designed for Ethnomusicology, Music History, and Anthropology majors. Cross-cultural examination of music in context of social behavior and how musical patterns reflect patterns exhibited in other cultural systems, including economic, political, religious, and social structure. P/NP or letter grading. CM182. Music Industry. (4) Same as Music CM182, Musicology CM185, and Music Industry M182. Lecture, four hours; discussion, one hour; outside study, seven hours. Limited to Ethnomusicology, Music, and Musicology majors. Examination of influence of music industry on way music is created, performed, listened to, evaluated, and used today. Historical approach taken, beginning with music published in 18th century and continuing through development of audio recordings to MTV and beyond. Concurrently scheduled with course CM288. Letter grading.

183. Study of Ethnomusicology. (4) Lecture, three hours; outside study, nine hours. Requisites: courses M6A, M6B, M6C, 20A, 20B, 20C. Designed for Ethnomusicology majors, seniors in elementary and secondary music, and social studies majors. Integration of academic work and hands-on experience. Internship in supervised setting in community agency or private business. Students meet on regular basis with instructor and provide periodic reports of their experience. May be repeated for credit with different subject matter. P/NP or letter grading.

195A. Community or Corporate Internships in Ethnomusicology. (2 to 4) Tutorial, six to 12 hours. Limited to juniors/seniors with minimum cumulative 3.0 grade-point average. Internship in supervised setting in community agency or private business. Students meet on regular basis with instructor and provide weekly reports of their experience. May be repeated for credit with different subject matter. Limited to 8 units. Individual contract with supervising faculty member required. P/NP or letter grading.

195B. Community or Corporate Internships in Public Ethnomusicology. (2 to 4) Tutorial, six to 12 hours. Limited to juniors/seniors in psychology emphasis. Internship in supervised setting in community agency or business. Students meet on regular basis with instructor and provide weekly reports of their experience. May be repeated for credit with different subject matter. Individual contract with supervising faculty member required. P/NP or letter grading.

196. World Music Teaching Practicum. (4) Seminar, two hours; fieldwork, three hours; outside study, seven hours. Limited to junior/senior Ethnomusicology majors. Integration of academic work and hands-on training. Participation in theoretical discussions of world music education and application of these theories in elementary and secondary music and social studies classrooms. P/NP or letter grading.

197E. Individual Studies in Ethnomusicology. (2 to 4) Tutorial, one hour; outside study, five to 11 hours. Preparation: 3.0 grade-point average. Limited to seniors. Individual intensive study in ethnomusicology, with scheduled meetings to be arranged between faculty member and student. Tangible evidence of mastery of subject matter resulting in final research project required. May be repeated for maximum of 8 units. Individual contract required. P/NP or letter grading.

197S. Individual Studies in Systematic Musicology. (2 to 4) Tutorial, one hour; outside study, five to 11 hours. Preparation: 3.0 grade-point average. Limited to seniors. Individual intensive study in systematic musicology, with scheduled meetings to be arranged between faculty member and student. Tangible evidence of mastery of subject matter resulting in final research project required. May be repeated for maximum of 8 units. Individual contract required. P/NP or letter grading.
Graduate Courses

200. Audiovisual Archiving in 21st Century. (4) Seminar, three hours. Designed for Ethnomusicology majors. Examination of history, present state, and future of audiovisual archives, with specific focus on ethics, copyright, contracts, fieldwork, preservation, and access and issues related to technology, space, budgets, and staffing. Concurrently scheduled with course C100. S/U or letter grading.


202. Current Issues in Ethnomusicology. (4) Seminar, three hours; outside study, nine hours. Limited to graduate ethnomusicology students. Current issues, basic literature, and schools of thought in field of ethnomusicology from late 19th century to present. Concurrent participation in Indian performance group (course C136B). Requisite: course 136A. S/U or letter grading.


205. Seminar: Information Technology and Research Skills. (4) Seminar, three hours. Limited to graduate ethnomusicology students. Lecture, demonstration, and practice. Basic skills for research on and about music that is essential to student careers as ethnomusicologists, specifically information technology skills, acoustics, and representational tools for nonlinguistic acoustic phenomena. Basic understanding of acoustics, ability to represent sounds in various graphic forms appropriate to them, and ability to locate and organize information sources related to field of ethnomusicology. Letter grading.

206. Integrating Theory with Ethnography. (4) Seminar, three hours. Designed to show how theory and primary research cannot exist without each other, and how various authors have integrated theoretical writings with ethnographic or historical data. Reading of several recent ethnographies, mostly about music and possibly historical studies, in tandem with theoretical writings that inform arguments of these books. Letter grading.


215A-215B. Ethnomusico logical Perspectives and Paradigms I, II. (4–4) Seminar, three hours; outside study, nine hours. Limited to graduate ethnomusicology students. Basic literature and schools of thought in field of ethnomusicology and related social sciences from late 19th century to present. Limited to 20 graduate ethnomusicology students. Concurrent participation in Indian performance group (course C136B). Requisite: course 136A. S/U or letter grading.

216A-216B. Ethnomusico logical Methods I, II. (4–4) Seminar, three hours; outside study, nine hours. Limited to graduate ethnomusicology students. Letter grading. 216A. Description of various research methods and techniques applicable to the study of music as a social institution. 216B. Methodological instruments for conducting research and writing it up in ethnomusicology. S/U or letter grading.


241. Music of Turkey and Iran. (4) Seminar, three hours. Limited to graduate ethnomusicology students. Comparative study of music of Iran and other related areas, including Turkey, with particular reference to their historical and cultural background, sources on music theory and aesthetics, instruments, style, technical practice and improvisation, and fieldwork. Concurrent participation in Near East performance ensembles (course 91N or 161N) required. Concurrently scheduled with course C141. S/U or letter grading.

242. Seminar: Traditional Music of Japan, Korea, China, and World. (4) Lecture, four hours. Pop music is key part of contemporary Tibetan music, in particular a contesting and resolving tensions created between the two. Lecture, five hours. Designed for graduate students. Analytical seminar on role of music in and of Tibet and Tibetan within China of Mao Zedong and socialism, and that of market socialism from Deng Xiaoping to Xi Jinping. Exploration of ways in which Tibetan pop music is voice for Tibetans in Tibet, numerically small minority in China, and in small exilie population. Focus on Tibetan pop music exposes students to plethora of issues relevant to mics of small, minority, and stateless people, and of myriad political dimensions of pop music—turbulent, crude, subtle, social, and economic. Concurrently scheduled with letter grading.

228. Seminar: Balkan Music. (4) Seminar, three hours. Major issues in study of Balkan music, including song text analysis, music instruments, dance music, rhythms and customs, minorities, and ideology. S/U or letter grading.

230. European Musics: Politics, Identities, Nationalisms. (4) Seminar, three hours; outside study, nine hours. Designed for graduate students. European classical, folk, popular, traditional musics, with particular attention to way in which music mirrors, negotiates, and contests ideas about and practices of national and other forms of identity, ideas developed in other domains of discourse and practice such as philosophy, history, language, art, and folklore. Examination of ways music, ordinary people, and politicians have used music to affect political processes involved in contesting and resolving cultural hegemonies and identities between and among these identity formations. Historical period coverage primarily from 19th and 20th centuries, with examples from all over European continent. Letter grading.

233A-233B-233C. European Traditional and Popular Music. (0–0–4) Discussion, one hour. Review of literature on European traditional and popular music, with special attention to modern issues and processes. May be repeated for credit. In Progress (233A, 233B) and letter (233C) grading.

236B. Music of Africa. (4) Lecture, four hours; outside study, eight hours. Introduction to music of various African cultures and regions. Through readings, lectures, viewing of music, students gain greater understanding of diverse musical traditions found on African continent and become more cognizant of contributions that people of Africa have made to world music. Concurrently scheduled with course C136B. Letter grading.


241. Music of Turkey and Iran. (4) Seminar, three hours. Limited to graduate ethnomusicology students. Comparative study of music of Iran and other related areas, including Turkey, with particular reference to their historical and cultural background, sources on music theory and aesthetics, instruments, style, technical practice and improvisation, and fieldwork. Concurrent participation in Near East performance ensembles (course 91N or 161N) required. Concurrently scheduled with course C141. S/U or letter grading.

242. Seminar: Traditional Music of Japan, Korea, China, and World. (4) Lecture, four hours. Designed for students. Political imperatives have long had direct and often explicit impact on music sound and context in East Asia. Examination of interaction of ideology and musical practice in medieval Korea and in contemporary Korea, Japan, Taiwan, and China. Concurrently scheduled with course C150. Letter grading.

251. Music of Indonesia. (4) Lecture, three hours; outside study, nine hours. Requisite: course 20C. Emphasis on music of Javanese, Balinese, and Balinese music of Java, Bali, and other Indonesian islands. Concurrent participation in one Indonesian performance group (course 91B or 91H) required. S/U or letter grading.


255. Intangible Cultural Heritage Worldwide. (4) Lecture, three hours. Designed for ethnomusicology, music history, and world arts and cultures graduate students. Through critical reading of publications by scholars, official and cultural heritages are defined in terms of cultural heritage; examination of history of heritage conservation; concepts of tangible and intangible heritage; pioneering roles of Japan, South Korea, and UNESCO in creating intangible cultural heritage focal point of many cultural policies; concepts of intercultural heritage and practices in other countries; roles of private individuals, community initiatives, and international organizations in cultural preservation; and related issues impacting cultural heritage. Concurrently scheduled with course C155. Letter grading.

256A. Music in China. (4) Lecture, four hours. Requisite: course 20C. Limited to Ethnomusicology majors. Survey of traditional, popular, and Western-influenced musics currently widespread in China, including musical analysis of different genres; examination of
contexts in which they exist. Investigation of profound effect of Confucian and Communist ideologies on music. Concurrently scheduled with course C156A. Letter grading.

CM259. Music on China’s Periphery. (4) Lecture, four hours; outside study, eight hours. Designed for graduate students. Examination of historical and geographical backgrounds, social and cultural contexts in which music exists. Concurrently scheduled with course C159. S/U or letter grading.

M261. Gender and Music in Cross-Cultural Perspective. (4) Same as Gender Studies M261.) Seminar, three hours; outside study, nine hours. Examination of gender as it relates to musical traditions and performances, and a range of social and cultural contexts. Topics include gender in relation to music, musicology. (4 each) Seminar, four hours. Designed for Musicology graduate students. Examination of possibilities for subject-centered musical ethnography to account for gender, sexuality, and subjectivity. Power and media images. Letter grading.

M262. Musical Ethnography. (4) Seminar, three hours; outside study, nine hours. Examination of selected book-length ethnographies, most published in last 10 years, as they reflect genre and research procedure. S/U or letter grading.

M263. Perspectives in Popular Music Research. (4) Seminar, three hours. Investigation of theoretical paradigms, issues, and models of popular music, with emphasis on world music genres, local/global markets, mass mediation, appropriation and aesthetics of style, ethnographic methods, and impact of popular music studies on ethnomusicology. Letter grading.

M264. Urbanism and Music. (4) Seminar, three hours; outside study, nine hours. Theoretical and methodological issues in study of urban music in America and Europe. S/U or letter grading.

M265. Religion and Music. (4) Seminar, three hours; outside study, nine hours. Cross-cultural examination of role of musical expression as spiritual medium and as artistic expression in world religions. S/U or letter grading.

M266. Charles Seeger’s Life and Thought. (4) Seminar, three hours; outside study, nine hours. Charles Seeger’s (1886 to 1979) major writings and influence as his interest in applied musicology and American systematic musicology, his leadership in three fields he helped to found (ethnomusicology, historical musicology), as well as his interest in applied musicology and American composition processes. Letter grading.

M266A. Music and Ecstasy. (4) Seminar, three hours; outside study, nine hours. Relationship between music and consciousness in different world cultures and role music plays in ecstatic experiences. Phenomena include trance, spirit possession, shamanism, religious ecstasy, mysticism, and artistic inspiration. S/U or letter grading.

M268. Modernity and Musical Experience. (4) Seminar, three hours; outside study, 10 hours. Limited to graduate students. Examination of possibilities for subject-centered musical ethnography to account for fragmented musical experience in modern world. Consideration of local and world musics in relation to modernity (de)postmodern, global/local, notions of self and subject, power, and media images. Letter grading.

M270. Selected Topics in Composition. (4) Lecture, four hours; outside study, eight hours. Limited to graduate students. Examination of important musical concepts and approaches to enable students to develop greater compositional technique and understanding. Wayers composers of jazz, European classical, and other musics, with emphasis on successful approaches and use of extended compositional forms. Examination of way in which world music traditions have interfauced with jazz and other types of music to create new musical languages. Use of concepts, structural paradigms, and inspiration from literature, visual arts, and other sources to develop student compositions. May be repeated once for credit. Concurrently scheduled with course C156I. Letter grading.

271. Seminar: Acoustics of Music. (6) Seminar, three hours. Requisite: course 170. Selected topics in acoustics, including laboratory methodologies and practical applications. Topics include Western and non-Western musical instruments, tuning systems, psycho-acoustics, and methods of spectral analysis. May be repeated once for credit. S/U or letter grading.

273. Seminar: Psychology of Music. (6) Seminar, three hours. Theories in psychology of music, including recent findings in brain research, musical perception, learning, cognition, memory, therapy, affect, meaning, and measurement. May be repeated once for credit. S/U or letter grading.

275. Seminar: Aesthetics of Music. (6) Seminar, three hours. Specific topics in Western and non-Western aesthetic thought, including value, meaning (semiotics), historical development of theoretical perspectives on music, and design and appreciation. May be repeated once for credit. S/U or letter grading.

279. Seminar: Systematic Musicology. (4) Seminar, three hours. Requisite: course 170. Exploration of specific topics in general field of systematic musicology covering disciplines such as anthropology, acoustics, aesthetics, music perception, philosophy, organology, sociology, and experimental approaches. May be repeated for credit. S/U or letter grading.

280. Teacher Music Appreciation. (4) Seminar, three hours. Preparation: two ethnomusicology courses or concurrent enrollment in course 20A, 20B, or 20C. Designed for ethnomusicology and musicology students. Introduction to topics of current pedagogical philosophies and texts used in teaching introductory music survey courses, specifically music appreciation and general world music. Letter grading.


285. Seminar: Comparative Music Theory. (6) Seminar, three hours. Comparative study of codified music theories of select cultures—Western and non-Western—considered in themselves and as expressions of their societies. Theory considered as science of music; its place between cultural values and artistic expression; critical theories. S/U or letter grading.

C286. Public Ethnomusicology. (4) Lecture, four hours; outside study, eight hours. Designed for Ethnomusicology majors. How music industry functions and how music products are created, marketed, and consumed. Techniques of media, public relations, marketing, and audience development. S/U or letter grading.

287. Seminar: Folk Music. (4) Seminar, three hours; S/U or letter grading.

CM288. Music Industry. (4) Same as Music CM282 and Musicology CM288.) Lecture, four hours; discussion, one hour; outside study, eight hours. Limited to Ethnomusicology and Musicology majors. Examination of influence of music industry on way music is created, performed, listened to, evaluated, and used today. Historical approach taken, beginning with music published in 18th century and continuing through development of audio recordings to MTV and popular music today. Concurrently scheduled with course CM182. Letter grading.

289. Research Design and Grant Writing in Ethnomusicology. (4) Seminar, three hours; outside study, nine hours. Design of dissertation research proposal, locating and applying for dissertation fieldwork grants, organizing and presenting advanced academic proposals with sophisticated methods and professional writing skills. S/U or letter grading.


291. Ethnomusicology Colloquium Series. (1) Research group meeting, one hour. Limited to graduate ethnomusicology students. Introduction to new trends and issues in discipline of ethnomusicology in effort to strengthen and stimulate intellectual community within department. Topics vary from term to term and consist of presentations by guest lecturers, faculty members, and students. May be repeated for credit. S/U grading.

292A-292Z. Seminars: Special Topics in Ethnomusicology. (4 each) Seminar, four hours. Designed for graduate students. Utilization of special interests and expertise of regular and visiting faculty; problems of current interest presently offered in ethnomusicology program. S/U or letter grading.

295. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: appointment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

295A. Teaching Apprentice Practicum. (2) Eight weekly two-hour seminar sessions, plus intensive training session during Fall Quarter registration week. Preparation: appointment as teaching apprentice in Ethnomusicology Department. Required of all new teaching apprentices. Special course dealing with problems and practices of teaching ethnomusicology and systematic musicology at college level. May not be applied toward degree requirements. S/U grading.

295B. Teaching with Technology. (2) Seminar, three hours; outside study, three hours. Limited to graduate ethnomusicology students. Training in presentation, blackboard, web design, and digitization software, and its application in classroom and in preparation of electronic teaching portfolio. S/U grading.

296. Directed Individual Studies. (2, 4, or 6) Tutorial, to be arranged. Only 4 units may be applied toward MA comprehensive course requirements. S/U or letter grading.

297. Preparation for Master’s Comprehensive Examination or PhD Qualifying Examinations. (2 or 4) Tutorial, to be arranged. May be repeated for credit. S/U grading.


299. Guidance of PhD Dissertation. (4, 8, or 12) Tutorial, to be arranged. May be repeated for credit. S/U grading.
Overview

The Department of European Languages and Transcultural Studies (ELTS) provides advanced training in the cultural and linguistic traditions of Europe, emphasizing the transcultural relations between countries, while also framing these relations in a much broader global historical context that transcends Europe as a geographic space. This approach to culture and society promises to improve the understanding of history and the challenges of 21st-century globalized existence. Concentrating on the shared European roots is key, as is the goal of complicating the very idea of Europe by under-scoring the transcultural and global qualities of this space, especially in terms of colonial and imperial legacies. Today, Europe is a geopolitical space in which thinking about diversity, human rights, and religious tolerance remains important. The ELTS major and minors include language training, the study of culture, literature, film and media, and a focus on the new applied humanities (digital, environmental, medical, urban) in order to consider how these have altered our relationship to cultural analysis and production. The department also encourages study abroad, internship opportunities, and organize professionalization seminars.

Undergraduate Study

The department provides advanced training in the cultural and linguistic traditions of Europe, emphasizing the transcultural relations between these countries, while also framing these in a much broader global historical context that transcends Europe as a geographic space.

The department trains students to think critically, to develop writing and research skills, and to understand the power of language to pursue advanced research in a challenging intellectual and globalized world. Students are prepared for graduate school and careers in education, international law and business, the arts, media and journalism, international health organizations, advertising, management consultancy, diplomacy, and publishing.

The various Bachelor of Arts (BA) degrees offered in ELTS share common foundational courses across language traditions and offer students the opportunity to specialize in individual language tracks. The BA in ELTS includes language training, but allows students design an individualized curriculum structured around ELTS offerings; whereas the BA in ELTS with individual language tracks provides students with a background in Europe and also in the various fields of French, Germanic, and Italian. In French, Germanic (Dutch, German, Yiddish), and Italian, this includes the study of culture, literature, and society, enhancing the understanding of the many facets of European civilization. In Scandinavian and Nordic Studies (Denmark, Finland, Norway, and Sweden), students explore how this region forms a geographic bridge between the American and European continents and a political bridge between Western and Eastern Europe. Together, the degrees offer undergraduate students a broad, interdisciplinary understanding of Europe, with a robust knowledge of the cultures and histories of this region from a global, transdisciplinary, and transcultural perspective. Students considering a major or minor in the department should consult with the departmental undergraduate adviser as soon as possible in their university career in order to select courses to fulfill major or minor requirements. The approved list of courses for each category of major or minor requirements is available in the department office, 212 Royce Hall, and on the department website.

Undergraduate Policies

No credit is allowed for completing a less advanced course after successful completion of a more advanced course in Danish, Dutch, Fin-nish, French, German, Italian, Norwegian, Swedish, and Yiddish grammar and/or composition.

Graduate Study

The graduate programs offer the Master of Arts (MA) degree and the Doctor of Philosophy (PhD) degree in French and Francophone Studies, Germanic Languages, and Italian; and an MA only in Scandinavian. Admission to graduate programs is prioritized for PhD degree applicants. They comprise advanced training in the various fields, as well as in literary criticism, cultural analysis, film studies, the applied humanities, and theory.

Undergraduate Majors

European Languages and Transcultural Studies BA

Learning Outcomes

The European Languages and Transcultural Studies major has the following learning outcomes:

- Demonstrated advanced proficiency in one or more language offered in the department
- Demonstrated proficiency in one of the areas of the experimental humanities (digital, environmental, medical, and urban)
- Demonstrated deep understanding of European culture and history, including in a global context
- Ability to interrogate, analyze, and discuss literary and filmic production
- Evidence of strong oral and writing skills
Entry to the Major

Transfer Students
Transfer applicants to the European Language and Transcultural Studies major with 90 or more units must complete the following introductory courses prior to admission to UCLA: completion of intermediate level of Danish, Dutch, Finnish, French, German, Italian, Norwegian, Swedish, or Yiddish, and any one course on European literature, culture, film, or media.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major

Required: one course from French 6, German 6, Italian 6, Scandinavian 8, or equivalent; one European Literature, Language, Culture, or Film and Media course selected from French 12, 14, 14W, 16, 41, 60, German 50B, 56, 59, Italian 42A, 42B, 42C, 46, 50A, 50B, Scandinavian 40, 40W, 50, 50W, or 60W; one Experimental Humanities (Digital, Environmental, Medical, and Urban) course selected from Digital: Comparative Literature 1E, Digital Humanities 30, Environmental, Medical, and Urban: Ancient Near East 14W, Ecology and Evolutionary Biology 17, History 3D, Honors Collegium 1, 26, Molecul

The Major

Required: One course selected from three of the following four areas:


European Film and Media: French 141, 142, German 103, 104, 157, Italian 121, or Scandinavian 161 through 167.

Experimental Humanities: Community Engagement and Social Change 100XP, 172XP, Comparative Literature 180, 180SL, Classics 148, Digital Humanities 101 through 151, English 118E, M118F, European Languages and Transcultural Studies C101XP, Food Studies M176XP, Italian 124, or Public Affairs M176XP.

Required Elective Courses: Three courses selected from French 100 through 169, and any two courses selected from European Languages and Transcultural Studies 100 through 175, Italian 100 through 158, or Scandinavian C131 through C185.

During their senior year, students must also take European Language and Transcultural Studies 187 in which they complete a capstone senior thesis.

Policies

Preparation for the Major

Required: French 6, or equivalent; one European Literature, Language, Culture, or Film and Media course selected from French 12, 14, 14W, 16, 41, 60, German 50B, 56, 59, Italian 42A, 42B, 42C, 46, 50A, 50B, Scandinavian 40, 40W, 50, 50W, or 60W; one Experimental Humanities (Digital, Environmental, Medical, and Urban) course selected from Digital: Comparative Literature 1E, Digital Humanities 30, Environmental, Medical, and Urban: Ancient Near East 14W, Ecology and Evolutionary Biology 17, History 3D, Honors Collegium 1, 26, Molecular Cell and Developmental Biology 60, Study of Religion 55, Urban: German 61A.

The Major

Required: advanced language course, three area courses, five elective courses, and a capstone senior thesis.

Advanced Language requirement: French 100 or 101.

One course selected from three of the following four areas (total of three courses):


European Film and Media: French 141, 142, German 103, 104, 157, Italian 121, or Scandinavian 161 through 167.

Experimental Humanities: Community Engagement and Social Change 100XP, 172XP, Comparative Literature 180, 180SL, Classics 148, Digital Humanities 101 through 151, English 118E, M118F, European Languages and Transcultural Studies C101XP, Food Studies M176XP, Italian 124, or Public Affairs M176XP.

Required Elective Courses: Three courses selected from French 100 through 169, and any two courses selected from European Languages and Transcultural Studies 100 through 175, Italian 100 through 158, or Scandinavian C131 through C185.

In addition to the advanced language requirement, students are required to complete a minimum of three upper-division courses in the target language from the required and elective sequences.

During their senior year, students must also take European Language and Transcultural Studies 187 in which they complete a capstone senior thesis.

Policies
European Languages and Transcultural Studies with German BA

Learning Outcomes
The European Languages and Transcultural Studies with German major has the following learning outcomes:

- Demonstrated advanced proficiency in German
- Demonstrated proficiency in one of the areas of the experimental humanities (digital, environmental, medical, and urban)
- Demonstrated deep understanding of European culture and history, including in a global context, with a particular expertise in German
- Ability to interrogate, analyze, and discuss literary and filmic production
- Evidence of strong oral and writing skills

Entry to the Major

Transfer Students
Transfer applicants to the European Languages and Transcultural Studies with German major with 90 or more units must complete the following introductory courses prior to admission to UCLA: two years of German, and any one course in European literature, culture, film, or media. Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major

Required: German 6, or equivalent; one European Literature, Language, Culture, or Film and Media course selected from French 12, 14, 14W, 16, 41, 60, German 50B, 56, 59, Italian 42A, 42B, 42C, 46, 50A, 50B, Scandinavian 40, 40W, 50, 50W, or 60W; one Experimental Humanities (Digital, Environmental, Medical, and Urban) course selected from Digital: Comparative Literature 1E, Digital Humanities 30, Environmental: English M30, Medical: Ancient Near East 14W, Ecology and Evolutionary Biology 17, History 3D, Honors Collegium 1, 26, Molecular Cell and Developmental Biology 60, Study of Religion 55, Urban: German 61A.

Students who have completed one year of college-level German language courses should enroll in course 4. Students who are in doubt as to their level of language proficiency or who are native speakers should consult with the language program supervisor.

The Major

Required: advanced language course, three area courses, five elective courses, and a capstone senior thesis.

Advanced language requirement: German 152 or 153

One course selected from three of the following four areas (total of three courses):


European Film and Media: French 141, 142, German 103, 104, 157, Italian 121, or Scandinavian 161 through 167.

Experimental Humanities: Community Engagement and Social Change 100XP, 172XP, Comparative Literature 180, 180SL, Classics 148, Digital Humanities 101 through 151, English 118E, M118F, European Languages and Transcultural Studies C101XP, Food Studies M176XP, Italian 124, or Public Affairs M176XP.

Required Elective Courses: Three courses selected from German 104 through 175, and any two courses selected from European Languages and Transcultural Studies 100 through 180, 191, French 100 through 169, German 104 through 175, Italian 100 through 158, or Scandinavian C131 through C185.

In addition to the advanced language requirement, students are required to complete a minimum of three upper-division courses in the target language from the required and elective sequences.

During their senior year, students must also take European Language and Transcultural Studies 187 in which they complete a capstone senior thesis.

Policies

The Major
Student may apply no more than two courses or 8 units from other departments. Approval for outside courses must be petitioned with the undergraduate adviser of the department. Students may apply no more than 4 units of European Languages and Transcultural Studies 195, 197, and 199 as a substitution for one elective course. Each major course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the major.

European Languages and Transcultural Studies with Italian BA

Learning Outcomes
The European Languages and Transcultural Studies with Italian major has the following learning outcomes:

- Demonstrated advanced proficiency in Italian
- Demonstrated proficiency in one of the areas of the experimental humanities (digital, environmental, medical, and urban)
- Demonstrated deep understanding of European culture and history, including in a global context, with a particular expertise in Italian
- Ability to interrogate, analyze, and discuss literary and filmic production
- Evidence of strong oral and writing skills

Entry to the Major

Transfer Students
Transfer applicants to the European Languages and Transcultural Studies with Italian major with 90 or more units must complete the following introductory courses prior to admission to UCLA: two years of Italian, and any one course on European literature, culture, film, or media.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major

Required: Italian 6, or equivalent; one European Literature, Language, Culture, or Film and Media course selected from French 12, 14, 14W, 16, 41, 60, German 50B, 56, 59, Italian 42A, 42B, 42C, 46, 50A, 50B, Scandinavian 40, 40W, 50, 50W, or 60W; one Experimental Humanities (Digital, Environmental, Medical, and Urban) course selected from Digital: Comparative Literature 1E, Digital Humanities 30, Environmental: English M30, Medical: Ancient Near East 14W, Ecology and Evolutionary Biology 17, History 3D, Honors Collegium 1, 26, Molecular Cell and Developmental Biology 60, Study of Religion 55, Urban: Italian 61A.

The Major

Required: advanced language course, three area courses, five elective courses, and a capstone senior thesis.

Advanced language requirement: Italian 100.

One course selected from three of the following four areas (total of three courses):


- European Film and Media: French 141, 142, German 103, 104, 157, Italian 121, or Scandinavian 161 through 167.

- Experimental Humanities: Community Engagement and Social Change 100XP, 172XP, Comparative Literature 180, 180SL, Classics 148, Digital Humanities 101 through 151, English 118E, M118F, European Languages and Trans-
cultural Studies C101XP, Food Studies M176XP, Italian 124, or Public Affairs M176XP.

**Required Elective Courses:** Three courses selected from Italian 102A through M158, and any two courses selected from European Languages and Transcultural Studies 100 through 180, 191, French 100 through 169, German 104 through 175, Italian 102A through M158, or Scandinavian C131 through C185.

In addition to the advanced language requirement, students are required to complete a minimum of three upper-division courses in the target language from the required and elective sequences.

During their senior year, students must also take European Language and Transcultural Studies 187 in which they complete a capstone senior thesis.

**Policies**

**The Major**

Student may apply no more than two courses or 8 units from other departments. Approval for elective course. Each major course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the major.

**European Languages and Transcultural Studies with Scandinavian BA**

**Learning Outcomes**

The European Languages and Transcultural Studies with Scandinavian major has the following learning outcomes:

- Demonstrated advanced proficiency in a Scandinavian language
- Demonstrated proficiency on one of the areas of the experimental humanities (digital, environmental, medical, and urban)
- Demonstrated deep understanding of European culture and history, including a particular expertise in the Scandinavian region
- Ability to interrogate, analyze, and discuss literary and filmic production
- Evidence of strong oral and writing skills

**Entry to the Major**

**Transfer Students**

Transfer applicants to the European Languages and Transcultural Studies with Scandinavian major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of either Swedish, Norwegian, or Danish, and any one course on European literature, culture, film, or media.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

**Requirements**

**Preparation for the Major**

Required: Scandinavian 6, or equivalent; one European Literature, Language, Culture, or Film and Media course selected from French 12, 14, 14W, 16, 41, 60, German 50B, 56, 59, Italian 42A, 42B, 42C, 46, 50A, 50B, Scandinavian 40, 40W, 50, 50W, or 60W; one Experimental Humanities (Digital, Environmental, Medical, and Urban) course selected from Digital: Comparative Literature 1E, Digital Humanities 30, Environmental English M30, Medical: Ancient Near East 14W, Ecology and Evolutionary Biology 17, History 3D, Honors Collegium 1, 26, Molecular Cell and Developmental Biology 60, Study of Religion 55, Urban: German 61A.

**The Major**

Required: One course selected from three of the following four areas (total of three courses):

- European Film and Media: French 141, 142, German 103, 104, Italian 121, or Scandinavian 161 through 167.
- Experimental Humanities: Community Engagement and Social Change 100XP, 172XP, Comparative Literature 180, 180SL, Classics 148, Digital Humanities 101 through 151, English 118E, M118F, European Languages and Transcultural Studies C101XP, Food Studies M176XP, Italian 124, or Public Affairs M176XP.

**Required Elective Courses:** Four courses selected from Scandinavian C131 through C185, and any two courses selected from European Languages and Transcultural Studies 100 through 180, 191, French 100 through 169, German 104 through 175, Italian 100 through M158, or Scandinavian C131 through C185.

During their senior year, students must also take European Language and Transcultural Studies 187 in which they complete a capstone senior thesis.

**Policies**

**The Major**

Student may apply no more than two courses or 8 units from other departments. Approval for outside courses must be petitioned with the undergraduate adviser of the department. Students may apply no more than 4 units of European Languages and Transcultural Studies 195, 197, and 199 as a substitution for one elective course. Each major course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the major.

Students who are interested in Danish, Finnish, and Norwegian language instruction may enroll in these courses at other UC campuses through distance learning, and may petition to apply these courses to the major requirements.

**Nordic Studies BA**

**Capstone Major**

The Nordic Studies major is a designated capstone major. Under the guidance of faculty members, students are required to devise, research, and complete either a substantial research paper, film/video, or a website that reflects significant engagement with a challenging question in the realm of Nordic studies. Through their capstone work, all students are expected to demonstrate their skills in articulating a clear and sophisticated research question, devising a realizable set of research goals, deploy their advanced knowledge of a Nordic language to access target language research materials and incorporate them into the research corpus, devise an appropriate modality for the final project, present a concise engaging public presentation of their research and respond to questions, and archive their project in an appropriate form.

**Learning Outcomes**

The Nordic Studies major has the following learning outcomes:

- Demonstrated command of the linguistic and cultural diversity of the Nordic region
- Demonstrated command of the economics, politics, environments, and histories of the Nordic region
- Demonstrated specific skills and expertise, including research, analysis, and writing
- Demonstrated understanding of the role of the Nordic region in global context, and the impact of global phenomena on the region
- Identification, evaluation, and analysis of appropriate primary sources
- Working knowledge of scholarly discourse from broad range of disciplines
- Conception and execution of a project that identifies and engages with a specialized topic
- Engagement with peers through presentation, discussion, and critique of student work

**Requirements**

**The Major**

Required: Nine courses from the following five tracks, with at least one course in four of the tracks: (1) early Nordic literatures and cultures—Scandinavian C131, C133A, C134, C137, 138, (2) theory, genres, and authors—Scandinavian C141A, 141C, 142A, 143C, C145A, C145B, C146A, 147A, C147B, (3) literary periods—Scandinavian C155, 156, 157, (4) Scandinavian cinema—Scandinavian 161, C163A, C166A, C166C, (5) cultural studies—Scandina-
Undergraduate Minors

European Languages and Transcultural Studies Minor

Admission
To enter the minor, students must have an overall grade-point average of 2.0 or better.

The Minor

Required Lower-Division Courses (8 units): One course selected from French 6, German 6, Italian 6, Scandinavian 6, or equivalent; and one European Literature, Language, Culture, or Film and Media course selected from French 12, 14, 14W, 16, 41, 60, German 50B, 56, 59, Italian 42A, 42B, 42C, 46, 50A, 50B, Scandinavian 40, 40W, 50, 50W, or 60W.

Required Upper-Division Courses (20 units): Three upper-division courses in European literature, culture, film, or media selected from three of the following four areas:

**European Literature**
- French 115 through 121, 136, 163, 164, 166
- German 110, 112, 158
- Italian 170, 173, 174
- Italian 103A, 103B, 110, 113, 119, 120, 140, 150

**European Culture**
- European Languages and Transcultural Studies 112, French 121, 130, 137, 138, 139, 160, 167, 169
- German 102, 109, 115, 116, 118SRL, 154, 159, 175

**European Film and Media**
- French 141, 142
- German 103, 104, Italian 121, or Scandinavian 161 through 167.

**Experimental Humanities**
- Community Engagement and Social Change 100XP, 172XP
- Comparative Literature 180, 180SRL, Classics 148, Digital Humanities 101 through 151, English 118E, M118F, European Languages and Transcultural Studies C101XP, Food Studies M176XP, Italian 124, or Public Affairs M176XP.

Upper-Division Electives: Two elective courses (minimum 8 units) selected from European Languages and Transcultural Studies 100 through 180, 191, French 100 through 169, German 104 through 175, Italian 100 through 158, or Scandinavian C131 through C185.

Policies
A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

European Languages and Transcultural Studies with German Minor

Admission
To enter the minor, students must have an overall grade-point average of 2.0 or better.

The Minor

Required Lower-Division Courses (8 units): German 6 or equivalent; and one European Literature, Language, Culture, or Film and Media course selected from French 12, 14, 14W, 16, 41, 60, German 50B, 56, 59, Italian 42A, 42B, 42C, 46, 50A, 50B, Scandinavian 40, 40W, 50, 50W, or 60W.

Required Upper-Division Courses (20 units): Three upper-division courses in European literature, culture, film, or media selected from three of the following four areas:

**European Literature**
- French 115 through 121, 136, 163, 164, 166
- German 110, 112, 158
- Italian 170, 173, 174
- Italian 103A, 103B, 110, 113, 119, 120, 140, 150

**European Film and Media**
- French 141, 142
- German 103, 104, Italian 121, or Scandinavian 161 through 167.

**Experimental Humanities**
- Community Engagement and Social Change 100XP, 172XP
- Comparative Literature 180, 180SRL, Classics 148, Digital Humanities 101 through 151, English 118E, M118F, European Languages and Transcultural Studies C101XP, Food Studies M176XP, Italian 124, or Public Affairs M176XP.

Upper-Division Electives: Two upper-division elective courses (minimum 8 units) selected from German.

One upper-division required course must be taught in German.

Policies
A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.
European Languages and Transcultural Studies with Italian Minor

Admission
To enter the minor, students must have an overall grade-point average of 2.0 or better.

The Minor
Required Lower-Division Courses (8 units): Italian 6 or equivalent; and one European Literature, Language, Culture, or Film and Media course selected from French 12, 14, 14W, 16, 41, 60, German 50B, 56, 59, Italian 42A, 42B, 42C, 46, 50A, 50B, Scandinavian 40, 40W, 50, 50W, or 60W.

Required Upper-Division Courses (20 units): Three upper-division courses in European literature, culture, film, or media selected from three of the following four areas:
- European Film and Media: French 141, 142, German 103, 104, Italian 121, or Scandinavian 161 through 167.
- Experimental Humanities: Community Engagement and Social Change 100X, 172X, Comparative Literature 180, 180SL, Classics 148, Digital Humanities 101 through 151, English 118E, M118F, European Languages and Transcultural Studies C101X, Food Studies M176X, Italian 124, or Public Affairs M176X.

Upper-Division Electives: Two upper-division elective courses (minimum 8 units) selected from Italian.

One upper-division required course must be taught in Italian.

Policies
A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Scandinavian Minor

Admission
To enter the Scandinavian minor, students must have an overall grade-point average of 2.0 or better.

The Minor
Required Courses (28 units): Any seven Scandinavian courses, two of which may be lower-division courses selected from Scandinavian 1 through 50.

Policies
A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Majors
French and Francophone Studies MA, CPhil, PhD

Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Germanic Languages MA, CPhil, PhD

Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Scandinavian MA

Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Dutch
Lower-Division Courses
19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses
103A-103B. Elementary Dutch. (4–4) Lecture, four hours; language laboratory. Course 103A is requisite to 103B. Introduction to standard language of Netherlands and one of three standard languages of Belgium. Practice in grammar, listening, speaking, reading, and writing. P/NP or letter grading.


104A-104B. Accelerated Dutch. (6–6) Lecture, four hours; discussion, one hour; laboratory, two hours. Covers material in courses 103A, 103B, 103C in two terms rather than three. Letter grading.

113. Modern Dutch and Flemish Literature in Translation. (4) Lecture, three hours. Readings and analysis of works by selected authors of Netherlands and northern (Flemish) Belgium such as Boon, Claus, Cousseus, Hermans, Mulisch, Mutatulli, and Reve and selected poets such as Campert, Gezelle, Gorter, Kloos, Lucebert, Nijhoff, Van Ostaijen, and Vroman. Letter grading.

131. Introduction to Modern Dutch Literature. (4)
Discussion, three hours. Requisite: course 103B or 120. Selected works of literature of Netherlands and northern (Flemish) Belgium from mid-1850s to present, including novels by such writers as Multatuli, Couperus, Hermans, Mulisch, and Reve and poetry by such groups as symbolist Beweging van Tachtig and post-War Beweging van Vijftig. P/N/P or letter grading.
189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/N/P or letter grading.

Upper-Division Courses
C101XP. Between Los Angeles and Europe: New Approaches to Transatlantic European Studies. (4) Lecture, three hours; community-engaged projects, three hours. Examination of migration history between Los Angeles and Europe with view to German-speaking world. Overview of transatlantic cultural, literary, and historical studies back to colonial era. Taught in English. S/U grading.

Graduate Courses
596. Directed Individual Study or Research in Dutch. (4) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culuminating paper or project required. May be repeated for credit. Individual contract required. P/N/P or letter grading.

European Languages and Transcultural Studies
Lower-Division Courses
19. Fiat Lux Freshman Seminars. (1) Tutorial, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many pressing issues for UCLA. P/N/P grading.
20. Copenhagen and Nordic Model of Sustainability. (5) Lecture, three hours. Introductory exploration of field of urban humanities before backdrop of Nordic model of sustainability through case study of city of Copenhagen. Investigation of how city’s human-centered design, planning, and general sustainability are reflected in Scandinavian cultural traditions in architecture, design, film, history, literature, television, urban planning, and design. P/N/P or letter grading.
89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/N/P or letter grading.
89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.
99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students ordinarily under upper-division mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/N/P grading.

European Languages and Transcultural Studies
C101XP. Between Los Angeles and Europe: New Approaches to Transatlantic European Studies. (4) Lecture, three hours; community-engaged projects, three hours. Examination of migration history between Los Angeles and Europe with view to German-speaking world. Overview of transatlantic cultural, literary, and historical studies back to colonial era. Targeted investigation of complex transatlantic relations between Anglophones and German immigrants during 20th century, including World War II. Students apply newly acquired cultural, historical, and political knowledge to current transatlantic conversations. Offers innovative, scholarly, and praxis-oriented approaches to transatlantic European studies through integration of lesson into community-engaged projects. Illumination of limits of monolingual or state-centric configurations of disciplinary knowledge in addition to exemplifying interdisciplinary and transnational studies of Europe, in general, and Germany, in particular. Concurrently scheduled with course C201XP. P/N/P or letter grading.
103. Topics in Medical Humanities. (4) Lecture, three hours. Exploration of selected topics in interdisciplinary field of medical humanities, which seeks to examine how arts, humanities, and social sciences can be brought into dialogue with medical discourse, education, and praxis. Taught in English. May be repeated for credit. P/N/P or letter grading.
112. Medieval Foundations of European Civilization. (4) Formerly numbered French 112.) Lecture, three hours. Introduction to tracing of genealogy of some of most important medieval intellectual traditions, such as empire and state, religion, university, architecture and visual arts, identity, class, race, and sexuality, foundational for European civilization. Exploration of birth of modern nations from their medieval foundation. Examination of cultural production: how and why certain values were created and then passed on. P/N/P or letter grading.
140. European Crime Novel. (4) Lecture, three hours. Focus on Italian crime novel, but in larger context of European crime fiction. Readings include some of most important and interesting contemporary authors of Italian detective fiction, Canto, de Giovanni, Pastor—to see what crime fiction can say about nation in age of globalization, and about Italy in European Union. P/N/P or letter grading.
150. European Folk and Fairy Tales. (4) Lecture, three hours. Study of characteristics, history, and scholarship of folktale/fairytale genre in European contexts. Comparison, analysis, and interpretation of tales. Instruction and texts in English. P/N/P or letter grading.
151. Valkyries and Dragonslayers: Völsung/Nibelung Tradition. (4) Lecture, three hours. Study of medieval Norse and German traditions of Völsung and Nibelungen families (Völsunga saga) and modern versions in various media (e.g., Wagner’s Ring Cycle, Fritz Lang’s Nibelungen films), in their historic and cultural contexts. Instruction and texts in English. P/N/P or letter grading.
167. European Identities in Classic Hollywood and Transatlantic Cycle, Fritz Lang’s Nibelungen films), in their historic and cultural contexts. Instruction and texts in English. P/N/P or letter grading.
214. European Identities in Classic Hollywood and Transatlantic Cycle, Fritz Lang’s Nibelungen films), in their historic and cultural contexts. Instruction and texts in English. P/N/P or letter grading.
203. Topics in Medical Humanities. (4) Seminar, three hours. Exploration of selected topic in interdisciplinary field of medical humanities, which seeks to examine how arts, humanities, and social sciences can be brought into dialogue with medical discourse, education, and praxis. Taught in English. May be repeated for credit. S/U or letter grading.
191. Variable Topics Research Seminar. (4) Seminar, three hours. Research seminar on topics to be announced each term, focusing on such writers, genres, cultural movements, or theoretical practices. Reading, discussion, and development of culminating project. May be repeated for credit. P/N/P or letter grading.

Graduate Courses

200. Graduate Methodology and Professionalization Seminar. (4) Seminar, three hours. Covers wide array of topics related to methodologies, concepts, and theories of transcultural and transnational literary and cultural studies in European context. Taught in English. S/U or letter grading.
C201XP. Between Los Angeles and Europe: New Approaches to Transatlantic European Studies. (4) Lecture, three hours; community-engaged projects, three hours. Examination of migration history between Los Angeles and Europe with view to German-speaking world. Overview of transatlantic cultural, literary, and historical studies back to colonial era. Targeted investigation of complex transatlantic relations between Anglophones and German immigrants during 20th century, including World War II. Students apply newly acquired cultural, historical, and political knowledge to current transatlantic conversations. Offers innovative, scholarly, and praxis-oriented approaches to transatlantic European studies through integration of lesson into community-engaged projects. Illumination of limits of monolingual or state-centric configurations of disciplinary knowledge in addition to exemplifying interdisciplinary, multilingual, and transnational studies of Europe, in general, and Germany, in particular. Concurrently scheduled with course C201XP. P/N/P or letter grading.
202. Studies in History of Ideas. (4) Seminar, three hours. Exploration of key concept or idea in European thought, examined historiographically and/or transnationally. Taught in English. May be repeated for credit. S/U or letter grading.
203. Topics in Medical Humanities. (4) Seminar, three hours. Exploration of selected topic in interdisciplinary field of medical humanities, which seeks to examine how arts, humanities, and social sciences can be brought into productive dialogue with medical discourse, education, and praxis. Taught in English. May be repeated for credit. S/U or letter grading.
204. Studies in Transatlantic Literature. (4) Seminar, three hours. Introduction to principles of literary translation and techniques of literary analysis; practice of translation (to and from English);
readings and research in translation studies, philology, linguistics, cultural studies, media, and technology. Taught in English. May be repeated for credit. S/U or letter grading.

205. Major Works and Figures in Transnational Context. (4) Seminar, three hours. Exploration of major European figure or work, where notion of European may understood broadly. Author, artist, or work selected by instructor and presented in broad transnational and/or transhistorical context. Taught in English. May be repeated for credit. S/U or letter grading.

206. Topics in Cultural Studies. (Seminar, three hours. In-depth exploration of major historical event through its representation in cultural production. Readings include cultural texts, documentary or archival material, essays on politics, and aesthetics, memory, urban space, architecture. Development of techniques of contextualized literary analysis. Taught in English. May be repeated for credit. S/U or letter grading.

207. Topics in Literary Studies. (Seminar, three hours. Conceptual, thematic, or problem-driven approach to questions in literary studies, with emphasis on both establishing and interrogating trends, debates, assumptions. Taught in English. May be repeated for credit. S/U or letter grading.

208. Topics in Film, Media, and Visual Culture. (Seminar, three hours. National or transnational exploration of movements, theories, questions, and problems in film, media, and visual cultures. Taught in English. May be repeated for credit. S/U or letter grading.


100. Written Expression: Techniques of Description and Argumentation. (4) Lecture, two hours; discussion, one hour. Enforced requisite: course 1 with grade of C– or better. P/NP or letter grading.


103. Third-Year French. (12) Lecture, 15 hours. All-in-French intensive language program equivalent to first year of college French and designed to develop basic language skills. Additional work in language and media laboratory required. Offered in summer only. P/NP or letter grading.

104. Fourth-Year French. (12) Lecture, 15 hours. All-in-French intensive language program equivalent to second year of college French. Additional work in language and media laboratory required. Offered in summer only. P/NP or letter grading.


109. French for Professional Purposes: Language and Communication in Professional Environment. (4) Lecture, three hours. Requisite: course 6. Oral and written communication in professional environment, including job search (résumé and cover letter), correspondence (professional letter and e-mail), and how to understand and negotiate work life in French-speaking company. P/NP or letter grading.


114B. Survey of French Literature: 17th and 18th Centuries. (5) Lecture, three hours. Requisite: course 12. Study of selections from major works of classicism and Enlightenment, including those by Racine, Pascal, La Fontaine, La Motte, Voltaire, and Rousseau. P/NP or letter grading.


115. Studies in Medieval French Culture and Literature. (4) Lecture, three hours. Enforced requisite: course 5. Taught in French. Study of medieval French culture and literature, including lyric poetry and narrative poetry, history, art, culture, and class structures. May be repeated for credit with topic change. P/NP or letter grading.

116. Studies in Renaissance French Culture and Literature. (4) Lecture, three hours. Taught in French. Study of Renaissance French literature and culture, including la Pèlerie and 16th-century poetry, linguistic and poetic revolution, novel and early prose, and late French humanism. May be repeated for credit with topic change. P/NP or letter grading.

117. Studies in 17th-Century French Culture and Literature. (4) Lecture, three hours. Enforced requisite: course 5. Taught in French. Study of 17th-century French culture and literature, including theater, philosophers, moralists, novelists, and cultural, political, social, religious, and courtly arts. May be repeated for credit with topic change. P/NP or letter grading.

118. Studies in 18th-Century French Culture and Literature. (4) Lecture, three hours. Taught in French. Study of 18th-century French culture and literature, including satire, novel, theater, philosophers, and theoretical writings. May be repeated for credit with topic change. P/NP or letter grading.

119. Studies in 19th-Century French Culture and Literature. (4) Lecture, three hours. Taught in French. Study of 19th-century French culture and literature, including realist and symbolist, and works from 1848 to World War I. May be repeated for credit with topic change. P/NP or letter grading.

120. Studies in 20th-Century French Culture and Literature. (4) Lecture, three hours. Taught in French. Study of 20th-century French culture and literature, including early 20th-century writers, surrealism, literature from 1915 to 1945, post-World War II literature,
121. Studies in Francophone Cultures and Literatures. (4) Lecture, three hours, Required: course 12 or 100. Taught in French. Study of contemporary France and Francophone world (Africa, Asia, Caribbean, Quebec, Europe, immigrants and colonialism and postcolonial studies. May be repeated for credit with topic change. P/NP or letter grading.

120. Contemporary French and Francophone Cultures. (4) Lecture, three hours, Required: course 12 or 100. Taught in French. Study of contemporary France and Francophone world (Africa, Asia, Caribbean, Quebec, Europe, immigrants and colonialism and postcolonial studies. May be repeated for credit with topic change. P/NP or letter grading.

130. Contemporary French and Francophone Cultures. (4) Lecture, three hours. Required: course 12 or 100. Taught in French. Study of contemporary France and Francophone world (Africa, Asia, Caribbean, Quebec, Europe, immigrants and colonialism and postcolonial studies. May be repeated for credit with topic change. P/NP or letter grading.


134. Eco-Citizenship: Encounters with Eco-Citizens. (4) Lecture, three hours. Enforced requisite: course 6. Taught in French. Not open to students with credit for course 135. Exploration of what eco-citizen is, what it means to be eco-citizen, if we are eco-citizens, and why. Answers to these questions by studying sustainability in France. Study of French cities (i.e., Nantes) that act as real-life laboratories. Using reading, videos, and podcasts, students make observations and draw some conclusions regarding concept of eco-citizenship. Study of some theories on eco-citizenship developed by French thinkers. Exploration of how French citizens aspire to be eco-citizens. Students meet with them formally and informally through readings, videos, and virtual meetings. Examination of several experiments put in place by these cities, and assessment of whether these are successes or failures. Comparison and contrast of actions to protect environment developed in Los Angeles and at UCLA. P/NP or letter grading.


137. French and Francophone Intellectual History. (4) Lecture, three hours. Required: course 12 or 100. Taught in French. Exploration of themes that address particular parts of the French literary, civilization, or ideas. May be repeated for credit with topic change. P/NP or letter grading.

138. Contemporary French Theory. (4) Lecture, three hours. Required: course 12 or 100. Taught in French. Study of French theory (Barthes, Derrida, Cixous, Derrida, Foucault, Irigary) and major concepts in contemporary French thought, with attention to its influence on and application to literary and non-literary texts. May be repeated for credit with topic change. P/NP or letter grading.

139. Paris: Study of French Capital. (4) Lecture, three hours. Enforced requisite: course 5. Taught in French. Textual and visual exploration of historical and imaginary (myths, fictions, beginning with its earliest history and gradual formation of this great urban complex in maps from Renaissance to 20th century. Study of city's streets and quarters, traffic and transportation, multiple layers of past, present, and future, and flâneurs and insurrectionists through wide range of literary and critical texts. Readings cover mainly 19th and 20th centuries—Honoré de Balzac, Charles Baudelaire, André Breton, Paul Eluard, Louis Ferdinand Céline, and others. P/NP or letter grading.

140. Nantes: Shape of City. (4) Lecture, three hours. Enforced requisite: course 6. Taught in French. Not open to students with credit for course 141. Metaphorical and virtual exploration of city of Nantes in western France to discover rich culture. Study of French government's repressive measures against Breton culture, and especially Breton language. Examination of Nantes' dark past, i.e. 18th-century slave trade. Study of how people today made it their mission to recover this repressed memory, and to create connections with African countries, victims of slave trade. Examination of Nantes' industrial past and how in recent years old and abandoned industrial sites transformed into inclusive spaces such as village solidaire, place to combat homelessness and promote social connections for all. P/NP or letter grading.

141. French Cinema. (4) Lecture, three hours. Study of French cinema and cinematographers in generic, thematic, and sociocultural aspects. May be repeated for credit with topic change. P/NP or letter grading.


143. Francophone Cultures in English. (4) Lecture, three hours. Study of historical, anthropological, legal, literary, or filmic texts to provide students with broad view of some main issues in field of colonial and post-colonial Francophone studies. P/NP or letter grading.

144. French and Francophone Theater in Translation. (4) Lecture, three hours. Through plays of 20th century, analysis of struggles of individuals and social groups in contexts that are historical, political, philosophical (existentialism, absurd), and cultural (colonialism and conformism). May be repeated for credit with topic change. P/NP or letter grading.

145. French and Francophone Short Story in Translation. (4) Lecture, three hours. Survey of short fiction forms in France and Francophone world. Terms in Francophone world. May be applied toward inclusive spaces such as village solidaire, place to combat homelessness and promote social connections for all. P/NP or letter grading.


147. Eco-Citizenship: Encounters with Eco-Citizens in Translations. (4) Lecture, three hours. Not open to students with credit for course 135. Exploration of what eco-citizen is, what it means to be eco-citizen, if we are eco-citizens, and why. Answers to these questions by studying sustainability in France. Study of French cities (i.e., Nantes) that act as real-life laboratories. Using reading, videos, and podcasts, students make observations and draw some conclusions regarding concept of eco-citizenship. Study of some theories on eco-citizenship developed by French thinkers. Exploration of how French citizens aspire to be eco-citizens. Students meet with them formally and informally through readings, videos, and virtual meetings. Examination of several experiments put in place by these cities, and assessment of whether these are successes or failures. Comparison and contrast of actions to protect environment developed in Los Angeles and at UCLA. P/NP or letter grading.


149. Eco-Citizenship: Encounters with Eco-Citizens in Translations. (4) Lecture, three hours. Not open to students with credit for course 135. Explanation of what eco-citizen is, what it means to be eco-citizen, if we are eco-citizens, and why. Answers to these questions by studying sustainability in France. Study of French cities (i.e., Nantes) that act as real-life laboratories. Using reading, videos, and podcasts, students make observations and draw some conclusions regarding concept of eco-citizenship. Study of some theories on eco-citizenship developed by French thinkers. Exploration of how French citizens aspire to be eco-citizens. Students meet with them formally and informally through readings, videos, and virtual meetings. Examination of several experiments put in place by these cities, and assessment of whether these are successes or failures. Comparison and contrast of actions to protect environment developed in Los Angeles and at UCLA. P/NP or letter grading.

150. Paris: Study of French Capital in Translation. (4) Lecture, three hours. Textual and visual exploration of historical and imaginary (re)constructions of Paris, beginning with its earliest history and gradual formation of this great urban complex in maps from Renaissance to 20th century. Study of city's streets and quarters, traffic and transportation, multiple layers of past, present, and future, and flâneurs and insurrectionists through wide range of literary and critical texts. Readings cover mainly 19th and 20th centuries—Honoré de Balzac, Charles Baudelaire, André Breton, Paul Eluard, Louis Ferdinand Céline, and others. P/NP or letter grading.


152. Cultural Studies. (4) Lecture, three hours. Introduction to cultural studies and cultural analysis. May be applied toward inclusive spaces such as village solidaire, place to combat homelessness and promote social connections for all. P/NP or letter grading.

153. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

154. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities and instructor. May be repeated for credit with consent of major adviser. P/NP or letter grading.

155. Community or Corporate Internship in French. (4) Tutorial, to be arranged. Limited to juniors/seniors. Internship in supervised setting in community agency or business. Students meet on regular basis with instructor and provide periodic reports of their experience. May be repeated for credit. Individual contract with supervising faculty member required. P/NP or letter grading.

156. Honors Research in French. (4) Tutorial, three hours. Limited to junior/senior French majors with 3.5 departmental and 3.25 overall grade-point averages. Development and completion of honors thesis or comprehensive research project. May be repeated for credit with consent of major adviser. P/NP or letter grading.

157. Directed Research or Senior Project in French. (2 to 4) Tutorial, three hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culuminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses


201. Techniques of Literary Analysis. (4) Lecture, three hours. Practice in close analysis of literary texts, including exploration of their aesthetic and ideological implications. P/NP or letter grading.

202. Cultural Studies. (4) Lecture, three hours. Introduction to theoretical approaches to popular and mass culture, and to postcolonial and Francophone cultures. Topics include emergent disciplines and theories such as sociology and structuralism, city, revolution, avant-garde strategies, media, diaspora during rich culture. Study of French government's repressive measures against Breton culture, and especially Breton language. Examination of Nantes' dark past, i.e. 18th-century slave trade. Study of how people today made it their mission to recover this repressed memory, and to create connections with African countries, victims of slave trade. Examination of Nantes' industrial past and how in recent years old and abandoned industrial sites transformed into inclusive spaces such as village solidaire, place to combat homelessness and promote social connections for all. P/NP or letter grading.
postwar modernization, Algerian War, May 68, and beyond. Theorists include Barthes, de Certeau, Bourdie, Daudet, Lyotard, Ross, Rey Chow, Virilio. S/U or letter grading.

203. Contemporary Francophone Literature. (4) Lecture, three hours. Study of Francophone African, Caribbean, Vietnamese, or Quebec literature and cultures, with specific attention to issues of cultural context, language, colonialism/postcolonialism, nationalism, resistance and dissidence, and postcolonial theory. S/U or letter grading.

204. Studies in Autobiography. (4) Lecture, three hours. Introduction to theories of autobiography and subjectivity, and to issues of authenticity in literature in French in the 20th century. Focus on the relationship between autobiography and the self, and on the role of autobiography in literary production in the present day. S/U or letter grading.


206. Studies in History of Ideas. (4) Seminar, three hours. Reading of primary texts from any period of French literature. May be repeated for credit. S/U or letter grading.

207. Studies in Literary Criticism. (4) Seminar, three hours. Reading of theoretical texts, theory, and literature from 17th century to present. May be repeated for credit. S/U or letter grading.

208. Studies in Literary Genre. (4) Seminar, three hours. Advanced research and study of literary genres such as poetry, drama, fiction, autobiography, or performance and of the theory of these genres. S/U or letter grading.


211. Introduction to Enlightenment. (4) Lecture, three hours. Taught in English. Readings in 18th-century French thought, including philosophy, science, and social thought. S/U or letter grading.

212. 18th Century. (4) Lecture, three hours. Readings in 18th-century French thought, including philosophy, science, and social thought. S/U or letter grading.


214. 20th Century. (4) Lecture, three hours. Overview of French literature from 1914 to present. S/U or letter grading.

215. Contemporary Francophone Literature. (4) Seminar, three hours. Study of Francophone African, Caribbean, Vietnamese, or Quebec literature and cultures, with specific attention to issues of cultural context, language, colonialism/postcolonialism, nationalism, resistance and dissidence, and postcolonial theory. S/U or letter grading.

216. Research Methods and Writing. (2) Seminar, two hours. Advanced study of current topics in literary and cultural analysis and in critical theory. Discussion of current research in literature and research specialty of faculty member teaching course. S/U grading.

217. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

218. Teaching Practice. (2 to 8) Seminar, to be arranged. May be repeated for maximum of 16 units. S/U grading.


220. 20th Century. (4) Lecture, three hours. Overview of French literature from 1914 to present. S/U or letter grading.

221. Directed Individual Studies or Research. (2 to 4) Seminar, to be arranged. S/U or letter grading.

222. Preparation for Second-Year Research or PhD Qualifying Examinations. (2 to 8) Seminar, to be arranged. May be repeated for maximum of 16 units. S/U grading.

223. Research for and Preparation of MA Thesis. (2 to 4) Seminar, to be arranged. Maximum of 4 units may be applied toward MA degree requirements. S/U grading.


German

Lower-Division Courses

1. Elementary German. (4) Lecture, five hours. P/NP or letter grading.

2. Elementary German. (4) Lecture, five hours. Enforced requisite: course 1. P/NP or letter grading.


5. Intermediate German. (4) Lecture, four hours; laboratory, one hour. Enforced requisite: course 4. P/NP or letter grading.

6. Intermediate German. (4) Lecture, four hours; laboratory, one hour. Enforced requisite: course 5. P/NP or letter grading.

7. Elementary German: Intensive. (12) Lecture, 15 hours; laboratory, five hours. Intensive basic course in German equivalent to courses 1, 2, and 3. P/NP or letter grading.


9. Special Topics in Modern Literature and Cultural Studies. (4) Lecture, three hours. Taught in English. Course of variable content limited to topics of current interest and offered whenever staff member is available. P/NP or letter grading.

10. Lower-Division Seminar. (4) Seminar, three hours. Course of variable content limited to topics of current interest and offered whenever student enrollment is steady. P/NP or letter grading.

11. Honors Seminars. (1 Seminar, three hours. Limited to 20 students. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

12. 61A. Modern Metropolis: Berlin. (5) Lecture, three hours. Taught in English. Analysis of current topics in greater Berlin area, including discussion of challenges and problems encountered in trying to understand the city as a global city. P/NP or letter grading.


14. Modern Metropolis: Berlin. (5) Lecture, three hours; discussion, one hour. Cultural, political, architectural, and urban history of one of most vibrant and significant cities in world. Exploration of city over 800 years, using innovative mapping tools to understand how Berlin evolved from fortified mercantile town into global city. P/NP or letter grading.

15. Special Topics in Modern Literature and Culture. (4) Lecture, three hours. Taught in English. Taught in English. Course of variable content limited to topics of current interest and offered whenever staff member is available. P/NP or letter grading.

16. Upper-Division Courses

102. War, Politics, Art. (5) Lecture, three hours; discussion, one hour. Taught in English. Analysis of interrelationship between politics, social conditions, and art with respect to arts in 18th and 19th centuries. S/U or letter grading.

110. Special Topics in Modern Literature and Culture. (4) Lecture, three hours. Taught in English. Course of variable content limited to topics of current interest and offered whenever staff member is available. P/NP or letter grading.

111. Student Research Program. (1 to 2) Tutorial, supervised research or other scholarly activity. May be repeated. Entry-level research for lower-division students under guidance of faculty mentor. May be repeated for maximum of 12 units excluding this course. Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP or letter grading.
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114. Fairy Tales and Fantastic. (5) Lecture, three hours; discussion, one hour. Taught in English. History and reception of folklore collections in Europe, with particular attention to primary and secondary German tales. Interpretation of selected tales and their transformations and appropriation in literature, film, advertising, and pedagogy. P/NP or letter grading.

115. 19th-Century German Philosophy. (4) Lecture, three hours; discussion, one hour. Taught in English. German philosophy, which may generally be characterized as philosophy that takes activity rather than passive subsistence to be fundamental nature of all things, is one of Germany’s greatest gifts to humanity. Exploration of first half of two-century history of German philosophy—period from Kant to Nietzsche, including Hegel, Kierkegaard, and Marx. Letter grading.

116. 20th-Century German Philosophy. (4) Lecture, three hours; discussion, one hour. Taught in English. German philosophy, which may generally be characterized as philosophy that takes activity rather than passive subsistence to be fundamental nature of all things, is one of Germany’s greatest gifts to humanity. Exploration of second half of two-century history of German philosophy—period from Nietzsche through Habermas, Horkheimer, Adorno, Gadamer, Derrida, and Frankfurt School theorists. Letter grading.

117. German Exile Culture in Los Angeles. (4) Lecture, three hours. Taught in English. Cultural and historical analysis of creative works by German writers and other artists during and after World War II. General questions of cultural migration and cultural transfer to be thematized. P/NP or letter grading.

118SL. Between Memory and History: Interviewing Holocaust Survivors. (4) Seminar, two hours; fieldwork, two hours. Strongly recommended requisites: prior European and Holocaust history courses. Examination of historical value of eyewitness testimony of Holocaust through unique service opportunities that bring students together with survivors. Question of testimony approached from number of perspectives, including legal, historical, and ethical, to examine vexed relationship between history and memory. Examination of survivor testimony through classic mem- ories in field, such as Primo Levi’s The Drowned and the Saved and Ruth Kluger’s Still Alive. Through collaboration with Jewish Family Services, 1939 Club, and Los Angeles Museum of Holocaust, students meet and work with Holocaust survivors and undertake collaborative research and oral histories. Students also research and curate series of interactive tours through Museum of Holocaust. Letter grading.

140. Language and Linguistics. (4) Lecture, three hours. Enforced requisite or corequisite: course 6. Taught in German. German proficiency required. Theories and methods of linguistics, with emphasis on structure of modern standard German, its phonology, morphology, syntax, semantics, and pragmatics. Other topics include diachronic, spatial, and social variation of German (i.e., its historical development, dialectology, and sociolinguistic dimensions). Letter grading.

141. Current Topics in Germanic Linguistics. (4) Lecture, three hours. Enforced requisite: course 152. Taught in English with German proficiency required. In-depth investigation of one topic in field of Germanic linguistics. Aspects include phonetics and phonology, morphology and syntax, semantics and pragmatics, social and spatial variation (i.e., sociolinguistics and dialectology of German), or history of German. May be repeated for credit. Letter grading.

142. Linguistic Theory and Grammatical Description. (4) Lecture, three hours. Enforced requisite: course 140 or Linguistics 20. Taught in English with German proficiency required. Problems in structure of Dutch and German, analyzed from theoretical frameworks such as sign-oriented linguistics, functional linguistics, discourse grammar, and cognitive linguistics. Discussion of formal linguistic approaches. Concurrently scheduled with course C238. Letter grading.

152. Conversation and Composition on Contemporary German Culture and Society I. (4) Lecture, three hours. Requisite: course 6. Taught in German. Structured plan for acquiring German while enhancing German texts ranging from news magazine articles to literature, with emphasis on speaking and writing proficiency. Presentation software featured. P/NP or letter grading.

153. Conversation and Composition on Contemporary German Culture and Society II. (4) Lecture, three hours. Requisite: course 6. Taught in German. Structured plan for acquiring German while enhancing German texts ranging from news magazine articles to literature, with emphasis on speaking and writing proficiency. Presentation software featured. P/NP or letter grading.


155. Advanced German Language through Cultural History and Current Affairs. (4) Lecture, three hours. Requisites: courses 152, 153. Taught in German. Advanced German course that juxtaposes cultural history with current affairs to teach complex speaking and writing skills of interpretation, analysis, and critique. Readings and activities from literature, Luther, Heine, Freud, and current authors. Students create their own interactive media presentations. Letter grading.

157. Contemporary German Cinema: Advanced Conversation and Composition. (4) Lecture, three hours. Taught in German. Development of advanced speaking skills and thorough grounding in essay writing in German by considering issues of style, structure, grammar, vocabulary, and cultural nuances. Important terms and resources of literary analysis to help students develop and improve skills in close and critical reading of literary texts, develop basic research technique and data organization. Analysis of several theoretical pieces that examine relationship between internationalization, globalization, and identity. P/NP or letter grading.

158. Introduction to Study of Literature. (4) Lecture, three hours. Taught in German. Introduction to most important terms and resources of literary analysis to help students develop and improve skills in close and critical reading of literary texts, develop basic research technique and data organization. Analysis of several theoretical pieces that examine relationship between internationalization, globalization, and identity. P/NP or letter grading.

160. Goethe. (4) Lecture, three hours. Taught in German, some theoretical readings in English. Exploration of German culture in different historical contexts. Examination of various cultural spaces, practices, and standpoints as they developed in literary and nonliterary texts, with emphasis on constructions of sex and gender, memory and national identity, and ethnicity and race. Analysis of ways of seeing, thinking, and talking about these issues as manifested in contemporary cultural debates that dominated public discussions in Germany (and Europe) for several weeks, months, or even years (e.g., debates about admission of women to universities at end of 19th century). Lecture, to be arranged. Enforced co-requisite: Honors College 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparation and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.


188SB. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced requisite: course 188SA. Enforced corequisite: Honors College 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to finalize course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

189A. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. Letter grading.

191A. Variable Topics Research Seminars: German. (4) Seminar, three hours. Enforced requisite: course 6. Taught in German. Research seminars on topics to be announced each term. Topics include major writers, genres, cultural movements, or theoretical practices. May be repeated for credit with consent of major adviser. P/NP or letter grading.
Graduate Courses

201C. Theories of Literary Interpretation. (4) Lecture, three hours. Analysis of various models of literary interpretation and selected works that illustrate different approaches. Letter grading.

202B. Readings in Middle High German Literature. (4) Lecture, three hours. In-depth study of Middle High German literature, with particular emphasis on a single major author or work. Letter grading.

204. Early Modern German Literature. (4) Lecture, three hours. Selected readings from 1500 to 1700, with emphasis on development of modern European literature and its relationship to contemporary society. S/U or letter grading.

205. Weimar Classicism. (4) Lecture, three hours. Reading and interpretation of major works of German Classicism, with attention to relationship between Classicism and other periods in German literature. Letter grading.

208. Romanticism. (4) Lecture, three hours. Analysis of selected works and theories of German Romantic literature such as Friedrich Schlegel, Novalis, and Hoffmann, with attention to relationship between Romanticism and other periods in German literature. Letter grading.


210A. Naturalism, Symbolism, and Expressionism. (4) Lecture, three hours. Analysis of selected works by authors of the naturalist, symbolist, and expressionist movements, with attention to relationship between Romanticism and other periods in German literature. Letter grading.

210B. 20th-Century Novel to 1945. (4) Lecture, three hours. Prose works in first half of 20th century as they express war experience, crisis of consciousness, and cultural conflicts between wars, as well as innovations in narrative technique. Letter grading.

211. Postwar Literature. (4) Lecture, three hours. Study of major novels by German-speaking authors writing since World War II. Examination of issues such as identity crises, nationalism and divided Germany, gender expectations, and social-political attitudes. Letter grading.

212. Contemporary Literature and Culture. (4) Lecture, three hours. Analysis of current cultural issues and their relation to literary production and interpretation. Topics may include such areas as feminism, postcolonialism, postmodernism, and contemporary theory. Letter grading.

213. Topics in Literature and Film. (4) Lecture, three hours. With focus on the different modes of cultural representation, examination of topics in German literature and film from Weimar Republic to present. Study of media theory, film theory, and interdisciplinary approaches between film, literature, and social history. Letter grading.


232. Old High German. (4) Discussion, three hours. Introduction to earliest phases of German literature, with extensive readings in major documents of that period (750 to 1050). Emphasis on grammatical interpretation of these documents and identification of dialects used in their composition. S/U or letter grading.


238. Linguistic Theory and Grammatical Description. (4) Lecture, three hours. Enforced requisite: course 140 or Linguistics 20. Taught in English with selected readings in major theoretical works. Letter grading.


260. Seminar: Modern Period. (4) Seminar, three hours. In-depth analysis of one particular issue in pre-1945 German literature and culture. Letter grading.


263. Seminar: Literary Theory. (4) Seminar, three hours. Special focus on particular theoretical or interpretative paradigm. Content varies with instructor. Letter grading.


269. Approaches to Foreign Language Pedagogy. (4) Seminar, one hour. To be arranged with faculty member who directs study or research. Required research paper must be filed with department chair. S/U grading.

275. Teaching Apprentice Practicum. (1 or 2) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, tutor, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

276. Preparation for MA Comprehensive Examination or PhD Qualifying Examinations. (4) Tutorial, three hours. To be arranged with faculty member who directs examination preparation. S/U grading.

596. Directed Individual Study or Research. (4) Seminar, three hours. To be arranged with faculty member who directs research for and preparation of thesis. S/U grading.


Italian

Lower-Division Courses

1. Elementary Italian—Beginning. (4) Lecture, five hours. P/NP or letter grading.


7. Intensive Italian. (12) Lecture, 20 hours. Intensive language program equivalent to first year of college Italian (courses 1, 2, 3) and designed to develop basic language skills. Offered in summer only. P/NP or letter grading.

19. Flat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many perspectives. P/PUC or UCL/ A. P/NP or letter grading.

42A. Italy through Ages in English: Saints and Sinners in Early Modern Italy. (5) Lecture, four hours; discussion, one hour. Examination of issues of cultural hegemony, political and religious freedom, and doctrinal conflict through Italy’s early modern literary and artistic production. Texts may include Dante’s Divine Comedy, Boccaccio’s Decameron, Saint Catherine’s letters, Machiavelli’s The Prince, and Galileo’s scientific writings. Artworks may include those of Raphael and Michelangelo, as well as Bernini’s sculptures. P/NP or letter grading.

42B. Italy through Ages in English: Modern and Contemporary Italy. (5) Lecture, four hours; discussion, one hour. Profile of Italian history and culture through the analysis of gastronomic and literary texts. Special emphasis on the late Middle Ages, Renaissance, and Risorgimento. P/NP or letter grading.

46. Italian Cinema and Culture in English. (5) Lecture/ screen/ings, five hours; discussion, one hour. Special topics in Italian culture as reflected and reinforced by the nation’s prime artform, stressing aesthetics and ideology of films, contemporary Italian history, and politics. Rotating topics include sex and politics, comedy, integration, family networks, and neorealism. P/NP or letter grading.

50A-50B. Masterpieces of Italian Literature in English. (5-5) Lecture, four hours; discussion, one hour. Enforced prerequisite: course 100. Taught in Italian. Selected modern works of Italian literature, theater, art, and culture from medieval era to Renaissance and baroque. Emphasis on critical methods and skills for analyzing and interpreting wide range of Italian texts and cultural formations in their historical context and in comparison to contemporary and transnational views. Representative authors may include Saint Francis of Assisi, Dante, Boccaccio, Caterina Siena, Machiavelli, Giotto, Botticelli, Michelangelo, Leonardo, Caravaggio, Gaspara Stampa, Veronica Franco, Ariosto, Tasso, and Galileo. P/NP or letter grading.

103A, Introduction to Classic Italian Literary and Cultural Studies. (4) Lecture, three hours. Study of language at advanced level through reading of libretti. Six masterworks of Italian opera tradition—Il Barbiere di Siviglia, La Bohème, Pagliacci, Otello, Tosca, and La Traviata—offer culturally authentic contexts to learn about operas, their characters, plots, settings, and themes. Exploration of various historical, political, and cultural issues raised in each opera. P/NP or letter grading.


150. Italian Novella from Boccaccio to Basile in Translation. (4) Lecture, three hours. Analysis of development of Italian novella in its structure, historical context, and folk material. Special emphasis on how Italian novella influenced other European literatures. P/NP or letter grading.

50C. Modern Fiction in Translation. (4) Lecture, three hours. Enforced prerequisite: course 100. Taught in Italian. Study of modern prose from Italy through translations into the works of writers of international fame, with focus on concerns and styles of several prose works such as Umberto Eco’s The Name of the Rose, Pasolini’s The Maga- zine, Pinelli’s The Late Matta Pascal, and Calvino’s The Cosmicomics. P/NP or letter grading.

114B. Middle Ages: Medieval Humor, Moralism, and Society. (4) Lecture, three hours. Novelty of Boccaccio’s witty and comic masterpieces, Decameron, analyzed within context of medieval social codes of culture of time. P/NP or letter grading.


120. Modern and Contemporary Literature. (4) Lecture, three hours. Comparison of specific literary works and their adaptation into film and of different techniques in two media and forms of expression. Study of major Italian authors from modern and contemporary Italy. Examination of contemporary Italian culture, fashion and design, photography and visual arts, mass media, politics, music, and sports. P/NP or letter grading.

124. Food and Literature in Italy. (4) Lecture, three hours. Profile of Italian history and culture through analysis of gastronomic data, food traditions, and literary and visual works. Emphasis on Italian Middle Ages, Renaissance, and Risorgimento, or modern and contemporary movements such as Cucina futurista and slow food. Examination of relation of Italian traditions of food and eating with health, body, gender, community, politics, biodiversity, and environment. P/NP or letter grading.

125. Italian through Opera. (4) Lecture, three hours. Enforced prerequisite: course 6. Taught in Italian. Introduction to traditional Italian opera as means of appreciating cultural and art form of one of Italy’s most successful languages at advanced level through reading of libretti. Six masterworks of Italian opera tradition—Il Barbiere di Siviglia, La Bohème, Pagliacci, Otello, Tosca, and La Traviata—offer culturally authentic contexts to learn about operas, their characters, plots, settings, and themes. Exploration of various historical, political, and cultural issues raised in each opera. P/NP or letter grading.
152. Italy between Europe and Africa. (4) Lecture, three hours. Knowledge of Italian or background in Italian studies not required. Analysis and critical discussion of works by Italian, northern European, and African writers (including travelers and migrants) who from 18th century to present have seen or experienced Italian peninsula and islands as bridge between Europe and Africa, or mix of both. Readings include works by both Italian and African authors about Italy, and Italian authors about Africa and southern Italy. P/NP or letter grading.

M158. Women, Gender, and Sexuality in Italian Culture. (4) Seminar, three hours; discussion, one hour. Analysis of gender roles, images of femininity and masculinity, patriarchy, myths of Madonna and Latin lover, condition of women in modern history, politics, literature, film, and other media. Italian majors required to read texts in Italian. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

190HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as a functional one-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

191. Variable Topics Research Seminars: Italian Studies. (4) Seminar, three hours. Research seminar with focus on themes and issues outside uniquely Italian literature topics covered in regular departmental undergraduate courses. Reading, discussion, and development of culminating project. May be repeated for credit. P/NP or letter grading.

195. Community or Corporate Internships in Italian. (1) Internship, three hours. May be taken independently for credit. S/U or letter grading.

201. Bibliography and Methods of Research. (4) Lecture, three hours. Knowledge of Italian or background in Italian studies not required. Analysis and critical discussion of works by Italian, northern European, and African writers (including travelers and migrants) who from 18th century to present have seen or experienced Italian peninsula and islands as bridge between Europe and Africa, or mix of both. Readings include works by both Italian and African authors about Italy, and Italian authors about Africa and southern Italy. P/NP or letter grading.

214A-214F. Studies in Medieval Literature. (4 each) Lecture, three hours; discussion, one hour. Analysis of gender roles, images of femininity and masculinity, patriarchy, myths of Madonna and Latin lover, condition of women in modern history, politics, literature, film, and other media. Italian majors required to read texts in Italian. P/NP or letter grading.


216A-216E. Studies in the Renaissance. (4 each) Lecture, three hours. S/U or letter grading. 216A. Machiavelli and Renaissance Political Thought. 216B. Ariosto and Renaissance Epic. 216C. Tasso. 216D. Renaissance Theater. 216E. Renaissance Topics. Variable-content seminar on themes and issues of Renaissance literature, with coverage of authors such as Vasari, Leonardo, or Benvenuto.

217. Studies in 17th-Century Literature. (4) Lecture, three hours. Topics include Galileo and birth of scientific prose, Giordano Bruno, Gian Battista Marino, and baroque poetry, S/U or letter grading.

218A-218D. Studies in 18th-Century Literature. (4 each) Lecture, three hours. S/U or letter grading. 218A-218B. Allieri, 218C. Goldoni. 218D. Lecture, three hours. S/U or letter grading. 218D. Variable Topics. Variable-content seminar on themes and issues of 18th-century literature, with coverage of authors such as Vico, Landini, and Serpi.

219A-219D. Studies in 19th-Century Literature. (4 each) Lecture, three hours. S/U or letter grading. 219A. Foscolo. 219B. Leopardi. 219C. Manzonii. 219D. Variable Topics. Variable-content seminar on themes and issues of 19th-century literature, with coverage of authors such as Carducci, Tommaso, and Nievo.


221A-221E. Studies in 20th-Century Literature. (4 each) Lecture, three hours. S/U or letter grading. 221A-221B. Allieri, 218C. Goldoni. 218D. Lecture, three hours. S/U or letter grading. 221D. Variable Topics. Variable-content seminar on themes and issues of 20th-century literature, with coverage of authors such as DI Annunzio, Verga, Marinetti, and Pirandello. 221B. Contemporary Poetry. Analysis of legacy of two major figures in Italian poetry from World War II—Ungaretti and Montale. Thorough examination of movements and individual poets active in the 1960s and 1970s. 221C. 20th-Century Narrative to World War II. Assessment of turn-of-the-century narrative pattern (Gabriele D’Annunzio) and analysis of radical innovations brought about by such towering figures as Dino Buzzati, Svevo, Bernari, Mannucci, etc. 221D. 20th-Century Narrative since World War II. In-depth exploration of some major works that have made contemporary Italian literature famous throughout the world, with special emphasis on study of form/formic models adopted by the neo-avant-garde. 221E. Pirandello and Contemporary Theater. Thorough reading of theatrical texts, accompanied by analysis of how the plays have been realized on stage by important directors such as Veronese, Raimondi, and the playwrights/actors themselves. Emphasis on ritualistic implications of the theatrical performance.

222A-222B. Comparative Romance Historical Grammars. (4 each) Evidently a core course, may be taken independently for credit. S/U or letter grading. 222A. Phonology. Principal sounds changes from late Latin to main Romance dialects. 222B. Mor-phology and Syntax. Prime morpha-syntactic changes occurring between late Latin and main Romance dialects.

223. Structures of Modern Italian. (4) Lecture, three hours. Descriptive. Topics include grammar of standard Italian from synchronic, typologcal vantage. Topical emphasis may vary annually, but core progression depart from phonology (e.g., syllable types, prosodic phonology), moves through morpho-logic constituents, passing to sentence sequences (coordination, ellipses, etc.), S/U or letter grading.

224. Italo-Romance Dialectology. (4) Lecture, three hours. Differentiation of late spoken Latin into myriad varieties spoken in Italy. Attention to discrete language types (e.g., Sardinian, Ladin, Friulan, and Franco-Provençal). Consideration of present-day sociolinguistic pressures. S/U or letter grading.


232. Seminar: Political Geography of Italy. (4) Lecture, three hours; reading period, two hours. Themes in political geography with particular emphasis on Italy. May be repeated for credit. S/U or letter grading.

250A-250D. Seminars: Dante. (4 each) Seminar, three hours. S/U or letter grading.


256A-256B. Seminars: 18th Century. (4–4) Seminar, three hours. S/U or letter grading.


258A-258B. Seminars: Contemporary Italian Literature. (4–4) Seminar, three hours. S/U or letter grading.

260. Alternative Perspectives in Italian Culture: Studies of Folk Tradition in Italian Literature. (4) Lecture, three hours. Open to undergraduate students with consent of instructor. Focuses on the study of specific works produced by women and/or representing women’s conditions in either medieval/Renaissance or contemporary time. S/U or letter grading.

260C. Studies in Film. Cinema. (4) Lecture, three hours. Designed for graduate students. Italian cinema compared with other European countries’ and Hollywood’s cinema, with focus on its development from its origins through Fascist times to neorealism, its legacy, and developments since, and contemporary scene. S/U or letter grading.

298. Variable Topics in Italian Studies. (4) Lecture, three hours; discussion, one hour. Designed for graduate students. Topics include basic features and issues outside the uniquely Italian literature topics covered in regular departmental graduate courses.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Development and learning in general, and for those wishing to prepare for more advanced and specialized studies in Scandinavian literature and culture. Satisfies Writing II requirement. Letter grading.

495A-495B-495C. Teaching Italian at College Level. (2 to 4) Seminar, to be arranged. S/U grading.

501. Cooperative Program. (2 to 8) Preparation: consent of UCLA graduate adviser and graduate dean, and host campus instructor, department chair, and graduate dean. Used to record enrollment of UCLA students in courses taken under cooperative arrangements with USC. S/U grading.


597. Preparation for MA Comprehensive Examinations or PhD Qualifying Examinations. (2 to 12) S/U grading.

599. PhD Research and Writing. (2 to 12) May be repeated. S/U grading.

Scandinavian

Upper-Division Courses

C131. Introduction to Viking Age. (4) Lecture, three hours. History, society, and culture of early Scandinavians. All texts in English, including readings in Old Norse sagas and Edda. Concurrently scheduled with course C231. Letter grading.

C133A. Saga. (4) Seminar, three hours. Sagas are largest extant medieval prose literature. Texts in English, with selections from different types of Icelandic sagas. Consideration of history and notion of what produced these narratives. Concurrently scheduled with course C233A. Letter grading.

C133C. Social Network Analysis and Icelandic Family Saga. (4) Seminar, three hours. Exploration of how character interactions can be used as basis for developing social network view of stage on which saga action plays out. Examination of how best to model sagas as dynamic social networks and learn about metrics and analytical approaches from social network analysis (SNA) that deepen understanding of saga actions. SNA provides additional opportunity to explore hypothetical situations and recognize alternative social pathways that may have led to other types of community formations. Study of Icelandic saga toward increasing complexity, understanding of characters and character roles, and utilizing this as basis of preliminary investigations. P/NP or letter grading.

C134. Scandinavian Mythology. (4) Seminar, three hours. Overview of major gods and goddesses, heroes and heroines, and notable traditions and characters in order to make up lore collectively referred to as Scandinavian, or Norse, myth. Reading and examination of this lore that is chiefly preserved in two collections traditionally called Poetic (or Elder) Edda and Prose (or Younger) Edda. P/NP or letter grading.

C137. Old Norse Literature and Society. (4) Seminar, three hours. Critical issues in medieval Scandinavian studies. May be repeated for credit. Concurrently scheduled with course C237.


C141A. Theory of Scandinavian Novel. (4) Seminar, three hours. Analysis of the structures of Scandinavian novel from its 18th-century beginnings through its rise in 19th century and its 20th-century evolution. Discussion of application of contemporary critical theories to newly discovered novels concurrently scheduled with course C241A. P/NP or letter grading.

C141C. Short Story in Scandinavia. (4) Seminar, three hours. Exploration of range of classic short story and novella texts from Scandinavian literary canon, with stories by authors such as Hans Christian Andersen, Jens Peter Jacobsen, Alexander Kielland, Amalie Skram, Sigfrid Obstfelder, Knut Hamsun, Isak Dinesen, and Rubén Palma. Examination of authors’ lives and oeuvres, larger Nordic/European literary movements of 19th and 20th centuries, and tropes and conventions of short stories themselves. P/NP or letter grading.

C142A. Introduction to Nordic Theater and Drama. (4) Lecture, three hours. Examination of artistry of Henrik Ibsen and August Strindberg in context of emergence of modern Nordic theater and drama as well as important contributions of their contemporaries and successors. Readings include plays, letters, speeches, and memoirs by Ludvig Holberg, Henrik Ibsen, August Strindberg, Pär Lagerkvist, Kjeld Abell, Eeva-Liisa Manner, Hrafnhildur Hagalín Gudmundsdóttir, and others. P/NP or letter grading.

C143A. Scandinavian Detective Fiction. (4) Seminar, three hours. Scandinavian authors have been writing detective fiction for years. Maj Sjöwall and Per Wahlöö were famous worldwide in 1960s and 1970s, especially with their Martin Beck series, and once they had established that Scandinavian writers could be successfully translated into many languages, others fol-
lowed. Scandinavian authors, while following traditional rules of crime fiction, also analyze and often criticize values and cultures of their societies. Reading of these works helps to represent critical social and intellectual problems not only in Scandinavia, but also in Europe and world at large. P/NP or letter grading.


C145A. Henrik Ibsen. (4) Seminar, three hours. Readings and discussion of selected plays by Henrik Ibsen. May be concurrently scheduled with course C245A. P/NP or letter grading.

C146A. August Strindberg. (4) Seminar, three hours. Readings and discussion of selected works by Knut Hamsun and other 19th- and 20th-century Scandinavian writers who explored theme of nature as modern idyl. May be concurrently scheduled with course C245B. P/NP or letter grading.

C147A. Henrik Ibsen. (4) Lecture, two hours; discussion, one hour. Study of works of Hans Christian Andersen, Danish novelist, dramatist, and writer of tales, including consideration of his literary background and an analysis of his works in terms of their structure, style, and meaning. P/NP or letter grading.

C148A. August Strindberg. (4) Seminar, three hours. Readings and discussion of selected works by Soren Kierkegaard and other existentialist writers. May be concurrently scheduled with course C248A. P/NP or letter grading.

147C. Karen Blixen. (4) Lecture, three hours. Investigation of work, writings, and legacy of Danish author Karen Blixen, also known in the English-speaking world as Isak Dinesen. Focus on literary and philosophical paradoxes personified and articulated by enigmatic, controversial, and widely acclaimed Dinesen. Using memoirs, short fiction, and essays by Dinesen, interrogation of aesthetic theory, historiography and biography, feminist theory, postmodern and transcultural theory, and secondary readings. Texts may include texts by Bhabha, Gilbert and Gubar, JanMohammed, Kierkegaard, Nietzsche, Ngugi, Said, and Thurm. P/NP or letter grading.

154. Romanticism. (4) Seminar, three hours. Exploration of the concept and content of Romanticism. Reading and discussion of different approaches to Romanticism and analysis of works of prominent Scandinavian writers from Romantic period to understand Scandinavian Romanticism in larger European context, including work from both English and German Romantic writers and artists. P/NP or letter grading.

C155. Modern Breakthrough. (4) (Formerly numbered 155.) Seminar, three hours. Readings and discussions of selected works of realism, naturalism, and symbolism in late 19th-century Scandinavian literature and art. Concurrently offered with course C255. P/NP or letter grading.

156. Scandinavian Literature of 20th Century. (4) Seminar, three hours. Readings and discussions of selected works of modern Scandinavian literature from beginning of century to present. P/NP or letter grading.

157. Contemporary Nordic Literature. (4) Seminar, three hours. Reading and analysis of selected texts by major 20th-century Swedish authors. P/NP or letter grading.

161. Introduction to Nordic Cinema. (4) Seminar, three hours. Designed for students in general and for those preparing for more advanced studies in Scandinavian literature and culture. Viewing and discussion of films by Ingmar Bergman and other Scandinavians. P/NP or letter grading.

C163A. Introduction to Danish Cinema. (4) Seminar, three hours. Introduction to history of cinema in Denmark, as well as to some fundamental concepts in study of film. Deliberately broad and historically informed approach to development of cinema in Denmark; rather than focus on films of particular directors or topics. Theoretical readings from important critics, including Kracauer, Bazin, Metz, and Chatman, along with selected critical vocabulary and a critical method for discussing films in general and Danish cinema in particular. Other readings include selections from Hitler, Heidegger, and other Scandinavian theorists. Concurrently scheduled with course C263A. P/NP or letter grading.

C163B. Introduction to Swedish Cinema. (4) Lecture, three hours. Introduction to and exploration of history of Swedish cinema and why. Film-makers include auteurs in international canon, such as Victor Sjöström, Mauritz Stiller, and Ingmar Bergman, as well as other key Swedish film-makers such as Gustaf Molander, Alf Sjöberg, Mai Zetterling, Vilgot Sjöman, Jan Troell, Lukas Moodysson, and Josef Fares. Development of Scandinavian high art cinema and popular genres such as rural romanticism, melodrama, crime, crime, and the here and now. Concurrently scheduled with course C263B. P/NP or letter grading.

C163C. Introduction to Norwegian Cinema. (4) Seminar, three hours. Introduction to and exploration of Norwegian cinema and why. Film-makers include Haakon Schyberg, Bent Hamer, Khalid Hussein, and Petter Naess. Particular focus on popular genres such as war films, horror, noir, romantic comedies, and documentaries. Concurrently scheduled with course C263C. P/NP or letter grading.

166B. Vikings on Film. (4) Seminar, three hours. Exploration of representations of Vikings in medium of film. Viking films within their historic and cultural contexts. How does representation of Vikings on film correspond to historical reality of Vikings? How do the cultural and historical context of the era and the region influence the movies? Why? Do we see development in idea of Vikings over time that is reflected in films from different periods? How do representations of Vikings in films produced in Scandinavia differ from their representations in films from other cultures? How do we see changing ideas about gender, ethnicity, disability, sexual preference, and other aspects of identity reflected in Viking films? Development of national cinema and cross-cultural analysis. All readings and films in English or with English subtitles. P/NP or letter grading.

C166A. Ingmar Bergman. (4) Seminar, three hours. Exploration of Ingmar Bergman’s development as film artist. Covered early films of the mid-1940s and late 1970s. Contextualization of work of most personal of filmmakers within multiple frameworks: postwar Swedish film industry, international art cinema movement, and issues of auteur filmmaking. Course readings and viewing of 10 Bergman films. All films have English subtitles. Concurrently scheduled with course C266A. P/NP or letter grading.

C166C. Carl Dreyer. (4) Seminar, three hours. Carl Theodor Dreyer (1889 to 1998) is not only one of the great masters of Nordic cinema, but of world cinema as well. Focus on films that Dreyer made during near half century between 1919 and 1964, contextualization of place of his film-making and place of personal and social values in Nordic society. Reading and discussion of films by David Bordwell, Ray Carney, Paul Schrader, Mark Sandberg, and others, as well as Dreyer’s own writings on cinema. All films have English subtitles. Concurrently scheduled with course C266A. P/NP or letter grading.

C171. Introduction to Scandinavian Folklore. (4) Seminar, three hours. Introduction to fairy tales and legends of Scandinavian tradition as well as to interpretive methodology. Answer question why do people tell stories that they tell? Concurrently scheduled with course C271. Letter grading.

172A. Nordic Folk and Fairy Tales. (4) Seminar, three hours. Exploration of Nordic version of classic tale types such as Dragon Slayer, Cinderella, Hansel and Gretel, and King Lindorm in historic and cultural contexts. Reading of important works of Nordic and international folk tale scholarship, representing historical-geographic, structuralist, psychological, feminist, disability-theory, and queer-theory approaches. Development of critical thinking and close text analysis skills, and understanding and appreciation of genre that continues to provide popular culture. Readings in English translation. P/NP or letter grading.

C173A. Popular Culture in Scandinavia. (4) Seminar, three hours. Examination of popular culture in Scandinavian through study of contemporary Scandinavian literature, music, and art. Investigation of how issues such as globalization, immigration, and nation- alism are portrayed in popular culture in Denmark, Norway, Sweden, Finland, and Iceland. Discussion of how how and why human condition is interpreted through study of cultural expressions and how it is possible—taking literature, film, and art as point of departure—to analyze cultural, historical, and political expression in given piece of art. P/NP or letter grading.

C174A. Minority Cultures in Scandinavia. (4) Seminar, three hours. Exploration of emergence of immigrant cultures in Nordic region. Beginning in 1960s, large numbers of people from Turkey, Italy, and Pakistan began immigrating to Nordic countries. Followed in subsequent decades by immigrants and refugees from Vietnam, India, Iran, Iraq, Afghanistan, Cambodia, and countries throughout Africa. Cultural landscape increasingly marked by relatively high degree of cultural homogenity now characterized by broad cultural diversity. Examination of emergence of new voices in Nordic cultural landscape in wide range of cultural expressive media, including literature, film, and visual and performing arts. Exploration of emergence of new forms of Nordic languages, such as well-documented phenomenon of Rinkeby Swedish. Concurrently scheduled with course C274A. P/NP or letter grading.

174B. Queer Scandinavia. (4) Seminar, three hours. Queer themes in Scandinavian literature, mainly from 19th and 20th centuries. Scandinavian literature had a more progressive view on homosexuality than most other countries, and Scandinavian writers portrayed homosexuality in explicit and radical ways as early as the turn of 19th century. Introduction to key theoretical works within field of gay and lesbian studies and queer studies, as well as presentation of historical view of how homosexuality has been perceived in world. P/NP or letter grading.

C180. Literature and Scandinavian Society. (4) Seminar, three hours. Discussion of selected aspects of Scandinavian society based on readings of contemporary literature as well as historical and/or sociological works. May be repeated for credit with consent of instructor and undergraduate adviser. May be concurrently scheduled with course C280. P/NP or letter grading.

C185. Seminar: Scandinavian Literature. (4) Seminar, three hours. Selected topics in Scandinavian prose, poetry, and drama. May be repeated for credit with consent of instructor and undergraduate adviser. May be concurrently scheduled with course C285. P/NP or letter grading.

187FL. Special Studies: Readings in Scandinavian. (2) Seminar, two hours. Requisite: course 105B or 106B or 107B. Students must be concurrently enrolled in the main course of Scandinavian languages (Danish, Icelandic, Norwegian, Swedish) to augment work assigned in main course, including reading, writing, and other exercises. May be repeated for credit. P/NP or letter grading.

188SA. Individual Study: NU USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss a Seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SB. Individual Study: NU USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss a Seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.
mentor to finalize course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SC. Individual Studies for USCE Facilitators. (2) Tutorial to be arranged. Enforced prerequisite course 188SB. Limited to junior/senior USCE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USCE 885 course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth and/or through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with a course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required.Honors content noted on transcript. Letter grading.

197. Individual Studies in Scandinavian. (2 to 4) Tutorial, three hours. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Signed reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

199. Directed Research in Scandinavian. (4) Tutorial, three hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Cumulating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

C231. Introduction to Viking Age. (4) Lecture, three hours. History, society, and culture of early Scandinavians. All texts in English, including readings in Old Norse sagas and Eddas. Concurrently scheduled with course C131. Graduate students do additional readings and write more extensive research papers. Letter grading.

C233A. Saga. (4) Seminar, three hours. Sagas are largest extant medieval prose literature. Texts in English, with selections from different types of Iceland sagas. Consideration of history and society that produced these narratives. Concurrently scheduled with course C133A. Graduate students do additional readings and write more extensive research papers. Letter grading.

C238B. Advanced Old Norse Prose. (4) Lecture, three hours. Requisite: course 132B. Readings of major saga texts. Also, secondary sources that bear on specific issues in Old Norse literature and medieval Scandinavian history. S/U or letter grading.


C237. Old Norse Literature and Society. (4) Seminar, three hours. Critical issues in medieval Scandinavian studies. May be repeated for credit. Concurrently scheduled with course C137. Graduate students do additional readings and write more extensive research papers. Letter grading.

C241A. Theory of Scandinavian Novel. (4) Seminar, three hours. Preparation: advanced knowledge of one Scandinavian language. Analysis of predominant structural features of Scandinavian novel from its 18th-century beginnings through its rise in 19th century and its 20th-century evolution. Discussion of application of contemporary critical theories to novels. May be concurrently scheduled with course C141A. Graduate students may meet as group one additional hour each week and write research papers of greater length and depth. S/U or letter grading.

C245A. Henrik Ibsen. (4) Seminar, three hours. Preparations: advanced knowledge of one modern Scandinavian language. Readings and discussion of selected plays by Henrik Ibsen. May be concurrently scheduled with course C146A. Graduate students may meet as group one additional hour each week and write research papers of greater length and depth. S/U or letter grading.

C245B. Knut Hamsun. (4) Seminar, three hours. Preparation: advanced knowledge of one Scandinavian language. Readings and discussion of selected works by Knut Hamsun and other 19th- and 20th-century Scandinavian writers who explored theme of nationality. Concurrently scheduled with course C145B. Graduate students may meet as group one additional hour each week and write research papers of greater length and depth. S/U or letter grading.

C246A. August Strindberg. (4) Seminar, three hours. Preparation: advanced knowledge of one Scandinavian language. August Strindberg’s portrayals of marital conflict reflected and shaped literary representation of woman’s work, as well as its literary transformations, placed into Scandinavian, European, and feminist context. May be concurrently scheduled with course C146A. Graduate students may meet as group one additional hour each week and write research papers of greater length and depth. S/U or letter grading.

C247B. Søren Kierkegaard. (4) Seminar, three hours. Preparation: advanced knowledge of one modern Scandinavian language. Readings and discussions of selected works of Søren Kierkegaard and other existentialist writers. May be concurrently scheduled with course C147B. Lecture and seminar scheduled with course C145A. Graduate students do additional readings and write research papers of greater length and depth. S/U or letter grading.

C247S. Modern Breakthrough. (4) Seminar, three hours. Readings and discussions of selected works of realism, naturalism, and symbolism in late 19th-century Scandinavian literature and art. Concurrently offered with course C155S. S/U or letter grading.

C263A. Introduction to Danish Cinema. (4) Seminar, three hours. Introduction to history of cinema in Denmark, as well as to some fundamental concepts in study of film. Deliberately broad and historically centered approach to development of cinema in Denmark rather than focus on films of particular directors or topics. Theoretical readings from important critics, including Benjamin, Conboy, Chatman, along with several directed exercises, to develop vocabulary and critical method for discussing films in general and Danish cinema in particular. Other readings include selections from Hjort, Sandberg, Tangherlini, and other Scandinavian scholars. Concurrently scheduled with course C163A. S/U or letter grading.

C263B. Introduction to Swedish Cinema. (4) Lecture, three hours. Introduction to and exploration of history of Swedish cinema from silent era to present. Filmmakers include auteurs in international canon, such as Victor Sjöström, Mauritz Stiller, and Ingmar Bergman, as well as other key Swedish filmmakers such as Gustaf Molander, Jörn Sjöberg, Mai Zetterling, Viggo Sjöman, Jan Troell, Lukas Moodysson, and Josef Fares. Development of Scandinavian high art cinema and popular genres such as rural romanticism, melodrama, sex, crime, and horror. All films have English subtitles. Concurrently scheduled with course C163B. S/U or letter grading.

C263C. Introduction to Norwegian Cinema. (4) Seminar, three hours. Introduction to and exploration of history of Norwegian cinema from silent era to present. Filmmakers include Tancoed Irksen, Arne Skouen, Edith Carlinar, Nils Gaup, Erik Skjoldbjærg, Bert Hamre, Khalid Hussain, and Petter Næss. Particular focus on popular genres such as war films, noir, horror, romantic comedies, and documentaries. Concurrently scheduled with course C163C. S/U or letter grading.

C265. Seminar: Scandinavian Literature. (4) Seminar, three hours. Preparation: reading knowledge of a Scandinavian language. Selected topics in Scandinavian prose, poetry, and drama. May be repeated for credit with consent of instructor and graduate adviser. May be concurrently scheduled with course C185S. S/U or letter grading.

C266A. Ingmar Bergman. (4) Seminar, three hours. Exploration of Ingmar Bergman's oeuvre, considered as film artist through various periods, spanning mid-1940s and late 1970s. Contextualization of work of this most personal of filmmakers within multiple frameworks of production and national film industries. Discussion of messages, events, and collective memory and its impact on cinema movement, and issues of auteur filmmaking. Concurrently scheduled with course C166A. S/U or letter grading.

C266C. Carl Dreyer. (4) Seminar, three hours. Carl Theodor Dreyer (1889 to 1968) is not only one of great masters of Nordic cinema, but of world cinema as well. Focus on films that Dreyer made during near half century between 1919 and 1964. Contextualization of silent and sound works of this most personal of filmmakers within multiple frameworks: Danish national film industry, transnational European cinema, and issues of auteur filmmaking. Writing by key Dreyer scholars such as David Bordwell, Ray Carney, Paul Schrader, Mark Sandberg, and others, as well as Dreyer’s own writings on cinema. All films have English intertitles or subtitles. Concurrently scheduled with course C166C. S/U or letter grading.

C271. Introduction to Scandinavian Folklore. (4) Seminar, three hours. Preparation: advanced knowledge of one modern Scandinavian language. Introduction to oral narrative and other extant Scandinavian tradition as well as to interpretive methodologies that strive to answer question why do people tell stories that they tell? Concurrently scheduled with course C171. Letter grading.

C275. Study of Oral Tradition: History and Methods. (4) Same as English M205A(S). Seminar, three hours. Exploration of scholarly and literary attempts to study, define, analyze, promote, and preserve oral traditions, from Homer and ancient Greece to origins of vernacular literatures, European romantic (re)discovery of oral tradition, 20th-century heuristic models of oral composition, and modern literary and popular verbal genres, such as joking and rapping. S/U or letter grading.

C273. Studies in Oral Traditional Genres. (4) Same as English M205C(S). Seminar, three hours. Exploration of oral traditions and literary attempts to study, define, analyze, promote, and preserve oral traditions, from Homer and ancient Greece to origins of vernacular literatures, European romantic (re)discovery of oral tradition, 20th-century heuristic models of oral composition, and modern literary and popular verbal genres, such as joking and rapping. S/U or letter grading.

C274A. Minority Cultures in Scandinavia. (4) Seminar, three hours. Exploration of emergence of immigrant cultures in Nordic region. Beginning in 1960s, large numbers of people from Turkey, Italy, and Pakistan began immigrating to Denmark, followed in subsequent decades by immigrants and refugees from Vietnam, India, Iran, Iraq, Afghanistan, Cambodia, and countries throughout Africa. Cultural landscape previously marked by relatively high degree of cultural homogeneity now characterized by broad cultural diversity. Examination of emergence of new voices in Nordic cultural landscape in wide range of cultural expressive media, including literature, film, and visual and performing arts. Exploration of emergence of new forms of Nordic languages, such as well-documented phenomenon of Rinkäby Swedish. Concurrently scheduled with course C174A. S/U or letter grading.

C280. Literature and Scandinavian Society. (4) Seminar, three hours. Designed for graduate students. Discussion of selected works of Scandinavian society based on readings of contemporary literature as well as historical and/or sociological material. May be repeated for credit (as determined by graduate adviser) with topic change. May be concurrently scheduled with course C180. Graduate students may meet for extra seminar hours and write research papers of greater length and depth. S/U or letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar to be arranged. Opportunity for graduate student to participate in college, funded cultures in Nordic region. Beginning in 1960s, large numbers of people from Turkey, Italy, and Pakistan began immigrating to Denmark, followed in subsequent decades by immigrants and refugees from Vietnam, India, Iran, Iraq, Afghanistan, Cambodia, and countries throughout Africa. Cultural landscape previously marked by relatively high degree of cultural homogeneity now characterized by broad cultural diversity. Examination of emergence of new voices in Nordic cultural landscape in wide range of cultural expressive media, including literature, film, and visual and performing arts. Exploration of emergence of new forms of Nordic languages, such as well-documented phenomenon of Rinkäby Swedish. Concurrently scheduled with course C174A. S/U or letter grading.
Yiddish

Lower-Division Courses

10. From Old World to New: Becoming Modern as Reflected in Yiddish Cinema and Literature. (5) Lecture, three hours; discussion, one hour. Use of media of Yiddish cinema (classic films and documentaries) as primary focal points to examine ways in which one heritage culture (that of Ashkenazic Jews, adapted to forces of modernity (urbanization, immigration, radical social movements, assimilation, and destructive organized anti-Semitism) from late-19th century to present. Exploration of transformational themes in depth through viewing of selected films, readings, research and weekly papers, and in-class discussions. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to 12 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

99. Student Research Programs. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in a minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

101A. Elementary Yiddish. (4) Lecture, four hours. Introduction to grammar; instruction in listening, speaking, reading, and writing skills. P/NP or letter grading.


102B-102C. Intermediate Yiddish. (4-4) Lecture, three hours. Requisite: course 102A. Course 102B is requisite to 102C. Grammatical exercises, reading and linguistic analysis of texts, conversation. P/NP or letter grading.


121C. Special Topics in Yiddish Literature. (4) Lecture, three hours. Varying topics of importance and relevance to Yiddish literary study. Reading and analysis of wide range of 19th- and 20th-century literature. P/NP or letter grading.

130. Introduction to Yiddish Culture and Language through Film. (4) Lecture, three hours. Introduction to Yiddish language and culture, with focus on classic Yiddish films and documentaries as integral tools for accessing culture associated with this heritage language. Viewing and discussion to gain deeper understanding and appreciation of complexity and scope of Yiddish culture and in particular of annihilated Yiddish civilization of 20th century. These films represent the best and most accessible way available to hear Yiddish spoken in fluent, natural manner. P/NP or letter grading.


131C. Special Topics in Yiddish Literature. (4) Lecture, three hours. Requisite: course 131A or 131B. Varying topics of importance and relevance to Yiddish literary study. Reading and analysis of wide range of 19th- and 20th-century literature. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

197. Individual Studies in Yiddish. (2 to 4) Tutorial, to be arranged. Limited to seniors. Individual intensive study or more specialized investigation of topics in Yiddish, with scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

596. Directed Individual Study or Research in Yiddish. (4) Tutorial, to be arranged with faculty member who directs study or research (course section to be identified by two-letter code using initials of sponsoring instructor—see department for ID number). May be repeated once. S/U grading.

597. Preparation for PhD Qualifying Examinations. (4) Tutorial, to be arranged with faculty member who directs study (see department for ID number). S/U grading.
Upper-Division Course
199. Directed Research in Family Medicine. (2 to 8)
Tutorial, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper required. May be repeated for credit. Individual contract required. P/NP or letter grading.

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Scott H. Chandler, PhD (Integrative Biology and Physiology)
Juliana K. Gondek, MM (Music)
Jennifer A. Jay, PhD (Civil and Environmental Engineering, Environment and Sustainability)
Kathleen L. Komar, PhD (Comparative Literature)

Overview
The Fiat Lux curriculum provides an intellectual space for faculty and students to explore new and interdisciplinary areas of topics within an intimate seminar setting.

The Fiat Lux Seminar Program is a unique educational initiative that allows faculty to broadly explore any topic and subject area while also connecting with first-year students. The Fiat Lux subject area and Fiat Lux 19 provide faculty with an intellectual space to explore new or interdisciplinary areas and topics that may be beyond their home academic department. Under the course number 19, Fiat Lux seminars may be offered in all academic departments.

Fiat Lux
Lower-Division Course
19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

FILM, TELEVISION, AND DIGITAL MEDIA
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Barbara Boyle, JD
George J. Huang, MFA
Erkki I. Huhtamo, PhD
Gina Kim, MFA
Deborah Nadoolman Landis, PhD (David C. Copley Professor of Costume Design)
Purnima Mankekar, PhD
Denise R. Mann, PhD
William C. McDonald, MFA
Kathleen A. McHugh, PhD
Sean A. Metzger, PhD
Phyllis A. Nagy, BFA
Chon A. Noriega, PhD
Kris S. Ravetto-Biagiolli, PhD
Teri E. Schwartz, MA
Charles E. Sheetz, MFA
Amy Villarejo, PhD
C. Fabian Wagemister, MFA

Professors Emeriti
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Nicholas K. Browne, EdD
John T. Caldwell, PhD
Gyula Gazdag, MFA
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Becky J. Smith, MA
Vivian Sobchack, PhD
Howard Suber, PhD

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Kristy M. Guevara-Flanagan, MFA
Arne O. Lunde, PhD
Ellen C. Scott, PhD
Jasmine N. Trice, PhD
Shawn G. VanCour, PhD

Assistant Professors
Rory M. Kelly, MFA
Veronica A. Paredes, PhD

Lecturers SOE
Harold L. Ackerman, MA, Emeritus
Mark McCarty, MA, Emeritus

Lecturers
William J. Barminski
Jill L. Goldsmith, JD, MFA
Hans-Martin Liebing, MFA
David M. Maquiling, BFA
Eric Marin, MA
Thomas A. Nunan III, BA
Mark E. Rosman, BA
John W. Yoon, MFA
Kris T. Young, MFA

Adjunct Professor
Liza Johnson, MFA

Overview
The Department of Film, Television, and Digital Media is dedicated to advancing the art and craft of media making and research in an increasingly complex and technology driven world. The department believes that innovative filmmaking and a critical understanding of media culture are necessary catalysts for social change. The department seek to cultivate a diverse body of students, empowering them to engage with different modes of thinking and creating and to contribute to social change through the collaborative arenas of media creation and intellectual inquiry.

For current or specific information about the programs and faculty members, see the department website.

Undergraduate Major
Film and Television BA
The undergraduate Film and Television major encourages development of a personal vision that incorporates creative, practical, intellectual, and aesthetic values. Within the context of a liberal arts education, the program provides a broad background in the field and in the diversity of film and television practice, including courses in history and theory, critical thinking, animation, screenwriting, and the fundamentals of film, video, and television production.

Capstone Major
The Film and Television major is a designated capstone major. Undergraduate students are required to complete one departmentally sponsored internship course as well as coursework related to the senior thesis concentration area. All courses, including capstone senior thesis projects, involve work shopping individual projects. Group participation in the creation and production of each student’s project is core to the curriculum. Specific student learning objectives vary based on concentration area.

Learning Outcomes
The Film and Television major has the following learning outcomes:

- Production of scholarly and artistic work in the areas of history, criticism, and theory of film, television, and digital media
- Mastery of fundamentals of preproduction, production, and postproduction of film, television, and digital media
• Demonstrated advanced understanding of one or more areas of study in cinema and media studies, filmmaking, screenwriting, animation, digital media, and producing

Entry to the Major

Admission

Students are admitted for fall quarter only. Admission is highly competitive, and only a limited number of students can be accepted each year. In addition to the UC Application for Admission and Scholarships, first-year and transfer applicants must submit a School of Theater, Film, and Television supplemental application. For information about the supplemental application, see the major website.

Transfer Students

Transfer applicants to the Film and Television major with 90 or more units must meet UCLA transfer requirements and, before arriving at UCLA, must complete the School of Theater, Film, and Television general education requirements by either (1) taking college courses that satisfy the school general education requirements or (2) completing the Intersegmental General Education Transfer Curriculum (IGETC) at a California community college or (3) achieving UC reciprocity through completion of general education requirements at another UC campus while a student there.

In addition to the UC Application for Admission and Scholarships, transfer applicants must submit a School of Theater, Film, and Television supplemental application. For information about the supplemental application, see the major website.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major

Required: Film and Television 4, 6A, 10A, 33, 51, 84A, and one course from Theater 10, 15, 20, 28A, 28B, 28C, or 30.

The Major

Required: Film and Television 101A, 106B or 106C, 134, 150, 154, 155, 163; one cinema and media studies elective from 107, 108, 109, M111, 112, 113, 114, M117, or 122N; one capstone departmentally sponsored internship (course 195); and a senior concentration (20 units) of advanced film coursework selected from among any one or more of the following areas of study, including at least two courses from within one area:


Screenwriting: Film and Television 135A, 135B, 135C.

Producing: Film and Television 146, C147, 183A, 183B, 183C, 184B.

Animation: Film and Television C181A, C181B, C181C.

Digital Media: Film and Television C142, C144, C145, C148.

Policies

The Major

Courses taken to satisfy the senior concentration may not also be applied toward other course requirements in the major.

Students should be mindful of the exigencies inherent in filmmaking and be prepared to meet the additional demands of time and costs.

Students are required to perform assignments on each other’s projects. In addition, the department reserves the right to hold for its own purposes examples of any work done in classes and to retain for distribution such examples as may be selected.

Undergraduate Minor

Film, Television, and Digital Media Minor

The Film, Television, and Digital Media minor is designed for students who wish to augment their major program of study with a series of courses that promote the study of film, television, and digital media as art forms with social, political, cultural, and economic significance. The minor consists of a selection of lower and upper-division courses that introduce students to the practice and critical study of film, television, and digital media.

Admission

To enter the minor students must have declared a major other than the Film and Television major, be in good academic standing, have a minimum 3.0 grade-point average, have completed at least three film and television courses with grades of B or better, and file an application at the Student Services Office, 103 East Melnitz Building, 310-206-8441. For information about the minor, see the minor website.

All degree requirements, including the specific requirements for this minor, must be fulfilled within the unit maximum set forth by each student’s school or College.

The Minor

Required Lower-Division Courses (8 to 11 units): Two courses selected from Film and Television 4, 6A, 10A, 33, M50, 51, or 84A.


Policies

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor. All units applied toward the minor must be taken in residence at UCLA. Film and television courses taken at other institutions cannot be applied toward the minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Majors

Film and Television MA, CPhil, PhD

Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduat Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Film and Television MFA

Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduat Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Film and Television

Lower-Division Courses

1A-1B-1C. Freshman Symposium. (1-1-1) Labora- tory, three hours. Course 1A is enforced requisite to 1B, which is enforced requisite to 1C. Limited to Film and Television majors. Structured forum in which freshmen meet on regular basis to discuss curricular issues, meet with faculty members from department, and have exposure to array of guest speakers from media industries. Letter grading.

4. Introduction to Art and Technique of Filmmaking. (8) Lecture, four hours; discussion, one hour. Students acquire understanding of practical and aesthetic challenges undertaken by artists and professionals in making of motion pictures and television. Examination of film as both art and industry; storytelling, sound and visual design, casting and performance, editing, finance, advertising, and distribution. Exploration of American and world cinema from filmmaker’s perspective. Honing of analytical skills and development of critical vocabulary for study of filmmaking as technical, artistic, and cultural phenomenon. P/NP or letter grading.

6A. History of American Motion Picture. (6) Lecture/ screenings, six hours; discussion, one hour. Historical and critical survey with examples, of American motion picture both as developing art form and as medium of mass communication. Letter grading.

10A. American Television History. (5) Lecture/ screenings, four hours; discussion, one hour. Critical survey of American television history from its inception to present. Examination of interrelationships between program forms, industrial paradigms, social trends, and culture. Starting with television’s hybrid origins in radio, theater, and film, contextualization, viewing, and discussion of key television shows, as well as Holly-wood films that comment on radio and television.
113. Film Authors. (5) Lecture/screenings, four hours; discussion, one hour. In-depth study of specific film author (director or writer). May be repeated for credit with topic change. P/NP or letter grading.

114. Film Genres. (5) Lecture/screenings, four hours; discussion, one hour. Study of specific film genre (e.g., Western, gangster cycle, musical, silent epic, comedy, social drama). May be repeated for credit with topic change. P/NP or letter grading.

M117. Chicanos in Film/Video. (5) Same as Chicana/o and Central American Studies M1114. Lecture/screenings, five hours; discussion, one hour. Goal is to gain nuanced understanding of Chicano cinema as political, social, cultural, economic, and aesthetic practice. Examination of representation of Mexican Americans and Chicanos in four Hollywood genres—silent greater films, social problem films, Westerns, and gang films—that are major genres that account for films about or with Mexican Americans produced between 1908 and 1980. Examination of recent Chichano-produced films that subvert or signify on these Hollywood genres, including Zoot Suit, Ballad of Gregorio Cortez, and Born in East L.A. Consideration of shorter, more experimental work that critiques Hollywood image of Chicanos. Guest speakers include both pioneers and up-and-coming filmmakers. P/NP or letter grading.


122D. Film Editing: Overview of History, Technique, and Practice. (4) Lecture, three hours. Exploration of film editing techniques, how they have evolved, and continue to evolve. Examination of history of editing, as well as current editing trends, terminology, and workflow. P/NP or letter grading.

122E. Digital Cinematography. (4) Lecture, three hours. With lectures, screenings, and demonstrations, study of principles of digital cinematography. How tools and techniques affect visual storytelling process. Topics include formats, aspect ratios, cameras, lenses, special effects, internal menu picture manipulation, lighting, composition, coverage, high definition, digital exhibits, film lab, digital projection, and multi-camera shooting. P/NP or letter grading.

122I. Writing for Animation Series. (5) Lecture, three hours. Introduction to craft and business of writing animation for television. Original feature animation produced specifically for this medium, along with its many formats. Business model has changed radically over past five decades, as have types of shows that have been created. Designed to put shows in historical perspective, with eye toward where industry is heading given changes in technology and continuing (and growing) scrutiny of outside forces such as corporations and FCC. Letter grading.

122J. Disney Feature: Then and Now. (5) Lecture, three hours; discussion, three hours. Study and analysis of Disney’s animated features. Evaluation of why Disney’s animated features have dominated until recently and ramifications of this dominance on animation and society. Letter grading.

122M. Film and Television Directing. (4) Lecture, three hours. Through discussions, screenings, demonstrations, and guest, exploration of script, previsualization, shooting acting and camera setup. Projects focus on relationship to story, practical on-set directing, and directing for camera. P/NP or letter grading.

122N. History of Animation in American Film and Television. (5) Lecture, three hours. History of animation from its precinematic origins to recent films of Disney, Pixar, DreamWorks, Ghibli, and others. Place of animation in pop culture, racial imagery and ethnicity, stereotypes, gender, and how it reflects American society. P/NP or letter grading.
126. Acting for Film and Television. (4) Studio, six hours. Projects in acting for television, video, and film. May be repeated twice for credit. P/NP or letter grading.

128. Media and Ethnicity. (4) Lecture, three hours. Utilizing an experiential, exploratory, and creative process in the study of the role of mass media in the processes and products of mass culture. Prerequisites: course 101A. Letter grading.

CM129. Contemporary Topics in Theater, Film, and Television. (2) (Same as Theater CM129.) Lecture, two hours; screenings, two hours. Limited to junior/senior and graduate theater/film and television students. Examination of creative process in theater, film, and television, with consideration of direction, production, and performance. Prerequisites: course 101A. Letter grading.

131. Introduction to Television Writing. (6 or 8) Lecture, three hours; laboratory, three hours; and seminar, three hours. Problems in film and television, with emphasis on uniqueness of computer-mediated expression. Letter grading.

132. Television Writing Workshop. (6) Laboratory, three hours. Students write first 10 pages of pilot for original one-hour drama or dramedy, or half-hour comedy series. Examination of topics such as pitching; television writing format and structure; current trends in television; how to develop characters and stories; and how to take idea from concept through logline, beat sheet, and outline to final professional first draft. Letter grading.

133A. Intermediate Television Writing Variety/Sketch Comedy. (8) Lecture, three hours. Recommended requisite: course 131. Examination of writing for sketch, talk, and other hybrid comedic television shows. Review of various types of parody including monologues, commercial parodies, slice-of-life comedy, character-driven comedy, physical comedy, comedy of absurd, and political and topical satire. Students write comedy two- or three-minute sketches and portfolios of monologue jokes. Offered every spring.

133B. Intermediate Television Writing One-Hour Drama/Half-Hour Dramedy Series. (6 or 8) Lecture, three hours. Recommended requisite: course 131. Examination of one-hour drama and dramedy formats, covering style, content, and structural analysis. Review of principles behind network needs and how pilots are chosen across networks: courses 101A, 185. Limited to Film and Television majors and designed for seniors. Prerequisites: courses in film and television writing. First act of original screenplay to be developed in course 135A, followed by second act in course 135B, and third act in course 135C. Concurrently scheduled with course C454C. Letter grading.

140. Interactive Expression. (4) Lecture, six hours. Introduction to history and practice of interactive media, with emphasis on uniqueness of computer-mediated expression. Letter grading.

141. Film and Television Sound Recording. (4) Lecture, three hours; laboratory, three hours. Techniques of sound design and recording in film and television. Offered in spring only. May be repeated twice for credit. Concurrently scheduled with course C452C. Letter grading.

143. Moving Digital Image. (4) Lecture, three hours; laboratory, three hours. Investigation of different ways of creating and manipulating linear moving images (digital video) on desktop computers, exploring both creative and theoretical visualization environment. Students conceive and produce number of short projects. Concurrently scheduled with course C243C. Letter grading.

144. Interactive Multimedia Authoring. (4) Lecture, three hours; laboratory, three hours. Introduction to expressive and aesthetic potential of interactive digital media and its theoretical issues. Exploration of methodologies and tools for media integration, interaction design, and interactive audiovisual construction. Students conceive, produce, and master individual interactive multimedia projects. May be repeated once for credit. Concurrently scheduled with course C244C. Letter grading.


146. Art and Practice of Motion Picture Producing. (4) Lecture, three hours. Exploration of role of producer as both artist and business person. Comparative analysis of screenplays and shooting scripts. Emphasis on assembly of creative team and analysis of industrial context, both independent and studio. Screenplays viewed outside of class and reserve on Powell Library. Letter grading.

147. Production Management: Physical Production for Creatives. (4) Lecture, three hours; laboratory, one hour. Analysis of procedure, problems, and budgeting in planning feature-length script for film and television production, with emphasis on role of producer and creative organizational techniques of producing. Concurrently scheduled with course C247C. Letter grading.

148. Advanced Digital Media Workshop. (4) Laboratory, two hours; discussion, four hours. Designed for students with previous laboratory course experience to provide opportunity to create larger-scale digital media works with advanced software tools and techniques in small process-oriented, constructive workshop environment. May be repeated twice for credit. Concurrently scheduled with course C248C. Letter grading.

150. Cinematography. (4) Lecture, three hours; laboratory, three hours. Course 101A. Corequisite: course 154. Limited to Film and Television majors. Introduction to motion imaging photography for thorough understanding of fundamental tools and principles of cinematography to create images that support and enhance story of film, achieve comprehen- sion of principles of motion imaging photography through lectures, discussions, and screenings, develop skills of cinematography by shooting exercises during laboratory period, and acquire appreciation of art of cinematography. Language and skills of image construction provided, as well as image analysis and deconstruction. Letter grading.

151. Introduction to Experimental Filmmaking. (4) Lecture, three hours; laboratory, to be arranged. Limited to Film and Television majors. Introduction to principles and practices of film and television sound recording, including supervised exercises. P/NP or letter grading.

152. Film and Television Sound Production. (4) Lecture, three hours; laboratory, three hours. Enforced requisite: courses 101A, 185. Limited to Film and Television majors. Introduction to principles and tools of sound gathering in visual storytelling through lectures, discussions, and screenings. Creative listening to sound of everyday life. Introduction to sound techniques covering topics such as people, environment, spatial relationships, movement, color, special effects, and continuity. Letter grading.

153. Motion Picture Lighting. (4) Lecture, three hours; laboratory, three hours. Enforced requisite: courses 101A, 185. Limited to Film and Television majors. Introduction to principles and tools of lighting used in visual storytelling through lectures, discussions, and screenings. Techniques of lighting for both narrative and non-narrative films. Letter grading.

154B. Advanced Film Editing. (4) Lecture, three hours: laboratory, one hour. Preparation: submission of rough cut of existing project or proposal to edit work of another director. Enforced requisite: courses 154, 185. Limited to Film and Television majors. Introduction to artistic and technical problems of film editing, with practical experience in editing and synchronous sound. Letter grading.

154C. Letter grading.


157. Lighting for Film and Television. (4) Lecture, two hours; laboratory, six hours. Required: course 101A. Corequisite: course 152, 158. Limited to departmental majors. Through discussions, demonstrations, outside speakers, and laboratory assignments, demystification of ever-changing world of digital workflow. Students plan, schedule, and budget their overall workflow in preproduction. May be repeated once for credit. Concurrently scheduled with course C454C. Letter grading.

158. Digital Workflow. (2 to 4) Lecture, three hours; laboratory, two hours. Required: course 101A. Corequisite: course 152, 158. Limited to departmental majors. Through discussions, demonstrations, outside speakers, and laboratory assignments, demystification of the world of digital workflow. Students plan, schedule, and budget their overall workflow in preproduction. May be repeated once for credit. Concurrently scheduled with course C454C. Letter grading.

164B. Contemporary Topics in Theater, Film, and Television. (2) (Same as Theater CM129.) Lecture, two hours; screenings, two hours. Limited to junior/senior and graduate theater/film and television students. Examination of creative process in theater, film, and television, with consideration of direction, production, and performance. Prerequisites: course 101A. Letter grading.

165. Intermediate Digital Media Workgroup. (4) Lecture, three hours; laboratory, two hours. Students with previous laboratory course experience to acquire appreciation of digital image, technology, and aesthetics of digital image, in context of emerging digital culture. Students conceive and produce several digital image visualizations. May be repeated once for credit. Concurrently scheduled with course C242C. Letter grading.

166. Film Editing. (4) Lecture, three hours; laboratory, three hours. Enforced requisite: courses 101A, 185. Limited to Film and Television majors. Introduction to principles and tools of lighting used in visual storytelling through lectures, discussions, and screenings. Creative listening to sound of everyday life. Introduction to sound techniques covering topics such as people, environment, spatial relationships, movement, color, special effects, and continuity. Letter grading.

167. Lighting for Film and Television. (4) Lecture, two hours; laboratory, six hours. Required: course 101A. Corequisite: course 150. Limited to Film and Television majors. Introduction to digital media and tools with advanced software tools and techniques of virtual production environments and digital postproduction tools. Letter grading.

168. Digital Workflow. (2 to 4) Lecture, three hours; laboratory, two hours. Required: course 101A. Corequisite: course 152, 158. Limited to departmental majors. Through discussions, demonstrations, outside speakers, and laboratory assignments, demystification of the world of digital workflow. Students plan, schedule, and budget their overall workflow in preproduction. May be repeated once for credit. Concurrently scheduled with course C454C. Letter grading.

169. Lighting for Film and Television. (4) Lecture, two hours; laboratory, six hours. Required: course 101A. Corequisite: course 150. Limited to Film and Television majors. Introduction to digital media and tools with advanced software tools and techniques of virtual production environments and digital postproduction tools. Letter grading.
164. Directing Actors. (4) Laboratory, four hours. Ex-erises in analysis of script and character for purpose of directing actors. Emphasis on eliciting best possible performance from actors. May be repeated twice for credit. P/NP or letter grading.

C168. Creative Location Film Production. (8) Lecture, four hours; discussion, four hours; laboratory, to be arranged. Limited to directing or producer's program. Selected problems of location, production, direction, and editing. Emphasis on creative location techniques. Practical application of solving problems and communication within limitations of production. Concurrently scheduled with course C468. Letter grading.

175A-175B. Undergraduate Film Production. (12–4) Laboratory, four hours; discussion, eight hours. Prerequisite: course C175A. Completion of post-production (editing, creation of sound tracks) for short film begun in course C175A. P/NP or letter grading.

M177. Film and Television Acting Workshop. (2) (Same as Theater M178.) Laboratory, four hours. Workshop to provide acting opportunities for students to hear, perform, and evaluate scenes. Three different production styles to which performers may need to respond. Selected scenes from plays, screenplays, and one act plays. (1) single-camera experience, and (3) multiple-camera experience. May be repeated twice for credit. Letter grading.

178. Film and Television Production Laboratory. (2 to 8) Laboratory, to be arranged. Supervised laboratory experience in various aspects of film and television production. May be repeated for maximum of 12 units, but only 8 units may be applied toward Film and Television major. Letter grading.

179. Digital Film and Television Production. (2-8) Laboratory, six hours. Supervised laboratory experience in various aspects of film and television production. Offered in summer only. Letter grading.

180A. Animation Fundamentals. (5) Lecture, six hours; laboratory, six hours. Fundamentals of animation through exercises and preparation of short animated film. Students create 10-second film in one of traditional techniques (non-computer), with music and/or sound effects. Offered in summer only. Letter grading.

180B. Writing for Animation. (4) Lecture, two hours; laboratory, six hours. Analysis and practice of effective visual storytelling through creation of three production stories. Concurrently scheduled with course C180A. Letter grading.

180C. Stop Motion Fundamentals Workshop. (2 to 4) Lecture, six hours; laboratory, six hours. Exercises designed to teach technical skills, processes, and principles of motion and timing. Use of range of materials, building animation performance in split-second increments arranged to give illusion of movement. Exploration of early history of stop motion. Collaborative creation of stop-motion film with each student directing and animating portion of film. Offered in summer only. Letter grading.


C181B. Writing for Animation. (4 or 8) Lecture, six hours; studio, to be arranged. Prerequisite: required laboratory. Concurrently scheduled with course C181A. Experiences in creative writing and planning for animated film. May be repeated for maximum of 16 units. Concurrently scheduled with course C481B. P/NP or letter grading.

C181C. Animation Workshop. (4 or 8) Studio, six hours. Preparation for first class meeting. Required for students in course C181A. Organization and integration of various creative arts used in animation to form complete study of selected topic. May be repeated for maximum of 8 units. Concurrently scheduled with course C481C. P/NP or letter grading.

182. Power, Identity, and Justice. (4) Lecture, three hours. Examination of how politics, economics, labor, and identity intersect and affect representation, employment, and industry cultures, especially of groups long underserved in mainstream film, television, and media industry. Offered in summer only. P/NP or letter grading.

18A. Producing I: Film and Television Development. (4) Lecture, three hours. Open to nonmajors. Critical analysis of contemporary entertainment industries and practical approach to understanding and implementing development features of film and television scripts. Through scholarly and trade journal readings, in-class discussions, script analysis, and select guest speakers, exposure to various entities that comprise the entertainment development process. Basic introduction to story and exploration of technique for evolving screenplays and teleplays through writing of coverage. May be taken independent study. Letter grading.

18B. Producing II: Entertainment Economics. (4) Lecture, three hours. Open to nonmajors. Critical understanding of strategies and operating principles that drive flow of revenue in entertainment industry. Exploration of theoretical frameworks and development of critical perspective, while studying industrial processes through which movie and television properties are financed and exploited throughout all revenue streams. May be taken independently for credit. Letter grading.

183C. Producing III: Marketing, Distribution, and Exhibition. (4) Lecture, three hours. Open to nonmajors. Marketing and distribution of feature films across multiple exhibition platforms and subsequent reception and consumption by audiences. Focus on engagement between distributor, exhibitor, and audience and analysis of various conceptual frameworks and industrial strategies, with which these relationships are conceived and operate. May be taken independently for credit. Letter grading.

184B. Overview of Contemporary Television Industry. (4) Lecture, three hours. Examination of evolving economic structures and business practices in contemporary Hollywood television industry, with emphasis on operations of networks and cable companies, series development, and network branding from 1947 to present. Letter grading.

185. Intermediate Undergraduate Film Production. (6) Laboratory, six hours; Requisites: courses 52, 154, 155, 163. Limited to Film and Television majors. Instruction and exercises in all stages of film production. Letter grading.

C186A. Advanced Documentary Workshop. (4) Lecture, three hours; laboratory, three hours; fieldwork, four to six hours. Prerequisite: course 186A or equivalent experience. Concurrently scheduled with course C403B. Letter grading.

C186B. Advanced Documentary Workshop. (4) Lecture, three hours; laboratory, three hours; fieldwork, four to six hours. Prerequisite: course C186A. Intermediate viewing and discussion of selected documentaries and instruction in various production skills necessary to create video documentaries. Completion of series of exercises from conceptualization through postproduction, culminating in production of short documentary. Concurrently scheduled with course C403B. Letter grading.

C186C. Advanced Documentary Workshop. (4) Lecture, three hours; laboratory, three hours; fieldwork, four to six hours. Prerequisite: course C186B. Advanced viewing and discussion of selected documentaries and instruction in various production skills necessary to create video documentaries. Completion of series of exercises from conceptualization through postproduction, culminating in production of short documentary. Concurrently scheduled with course C403C. Letter grading.

187A. Global Film and Television Development. (4) Lecture, three hours. Exploration of film and television development practices in key international markets. Introduction to key international markets, prominent global development and production entities, and their properties and development strategies. Designed to blend theory with practical application. Students read both academic literature and trade publications addressing development in U.S. and around world, and gain understanding of mechanisms that drive development in domestic and international territories. P/NP or letter grading.

187B. Producing I: Domestic and Global Entertainment Industry Careers and Strategies. (4) Lecture, three hours. Exploration of select film and television career paths and strategies in U.S. and major international markets. Introduction to typical approaches and strategies of producers, screenwriters, directors, and creative executives in U.S. and abroad. Students take part in moderated discussions with domestic and international industry professionals. Read both academic literature and trade publications addressing current state of domestic and global media industries. Through readings and discussions, students gain understanding of rapidly changing global entertainment landscape, and current and future employment trends and project development strategies. P/NP or letter grading.

187C. Scripted and Unscripted Series Development for Domestic and Global Streaming Services. (4) Lecture, three hours. Designed to enhance students' understanding of processes involved in domestic and international fiction and nonfiction development of projects for streaming services. Students are acquainted with common business and creative practices, while expanding their critical and practical understanding of quickly evolving and transforming global streaming landscapes. Examination of creative development processes and strategies for scripted and unscripted series for streaming services in U.S., and similarities and differences in business as well as creative approaches in major international territories. Examination of latest trends in fiction and nonfiction development, including strategies to work with international coproduction partners and developing projects using pre-viz and virtual production techniques. Covers streaming markets in North America, Europe, Asia, and Central and South America. P/NP or letter grading.

188A. Special Courses in Film, Television, and Digital Media. (4) Lecture, three hours; discussion, one hour. Special topics in film, television, and digital media for undergraduate students taught on experimental or temporary basis. May be repeated for credit. P/NP or letter grading.

188A. Special Courses in Film, Television, and Digital Media. (4) Tutorial to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188B. Special Courses in Film, Television, and Digital Media. (4) Tutorial to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to finalize course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188C. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Revision of student content noted on transcript. P/NP or letter grading.
200. Seminar: Research, Methods, and Resources. (6) Seminar, three hours; laboratory, four to six hours. Additional screenings and/or video laboratory work as required. Designed for graduate students. Examination of and study of research methods, techniques, and resources related to film and television research, including development of computer skills for preparation of bibliographies, online database searching and retrieval, and, when appropriate, use of computer/digital technologies. Letter grading.

201A. Seminar: Media Industries and Cultures of Production—Foundations. (6) Seminar, three hours; film screenings, three hours. Critical survey of scholarly traditions and methods (ethnographic, sociological, cultural studies) that have been used to study film and television production practices as cultural, social, and industrial phenomena, as basis for individual student research projects. Letter grading.

201B. Seminar: Media Industries and Cultures of Production—Transmedia. (6) Seminar, three hours; film screenings, three hours. Examination of contemporary production research and transmedia practices, including innovations in marketing, licensing, distribution, industrial organization, digital culture, new technologies, and evolving relations between fans and producers in digital economy. Letter grading.


203. Seminar: Film and Other Arts. (6) Seminar, three hours; film screenings, four to six hours. Designed for graduate students. Studies in interrelationships between film and other performing arts, or literature, with emphasis on ways these other arts have influenced film. May be repeated twice for credit. S/U or letter grading.

204. Seminar: Visual Analysis. (6) Seminar, three hours; film screenings, two to four hours. Study of visual analysis (or textual analysis), using DVD access to film and TV screenings as a means to learning what makes a film great and distinct art form. Exploration of role of visual style in narrative fiction filmmaking to attempt to understand some ways it can operate. Letter grading.

205. Seminar: Videographic Scholarship. (6) Seminar, three hours; film screenings, four to six hours. Designed for graduate students. Critical study of reception and use of visual-style in narrative fiction filmmaking to attempt to understand some ways it can operate. Letter grading.

209A. Seminar: European Film History. (6) Seminar, three hours; film screenings, four to six hours. Designed for graduate students. Studies in different periods of European cinema or movements. Topics may include French New Wave or French cinema, Soviet cinema, and Soviet silent cinema. Letter grading.

210. Seminar: History of Film. (6) Seminar, three hours; film screenings, four to six hours. Introduction to American film history. Letter grading.

211. Seminar: Historiography. (6) Seminar, three hours; film screenings, four to six hours. Examination of issues related to internship site through series of reading assignments constructed by faculty sponsor and student coordinator. May be repeated for credit with consent of Center for Community Engagement. Individual contract with supervising faculty member required. P/NP or letter grading.

199. Directed Research or Senior Project in Film, Television, and Digital Media. (2 or 4) Tutorial, one hour; fieldwork, eight to ten hours. Limited to juniors/seniors. Corporate internship in supervised setting in business related to film, television, and digital media industries. Students meet on regular basis with instructor and provide periodic reports of their experience. May be repeated for credit. Individual contract with supervising faculty member required. P/NP or letter grading.

195. Corporate Internships in Film, Television, and Digital Media. (2) Tutorial, one hour; fieldwork, eight to ten hours. Limited to juniors/seniors. Corporate internship in supervised setting in business related to film, television, and digital media industries. Students meet on regular basis with instructor and provide periodic reports of their experience. May be repeated for credit. Individual contract with supervising faculty member required. P/NP or letter grading.

193CE. Corporate Internships in Film, Television, and Digital Media. (4) Tutorial, one hour; fieldwork, eight to ten hours. Limited to juniors/seniors. Corporate internship in supervised setting in business related to film, television, and digital media industries. Students meet on regular basis with instructor and provide periodic reports of their experience. May be repeated for credit. Individual contract with supervising faculty member required. P/NP or letter grading.


206B. Seminar: Selected Topics in American Film History. (6) Seminar, three hours; film screenings, four to six hours. Seminar with focus on specific topic or period in American film history. Letter grading.

206C. Seminar: American Film History. (6) Seminar, three hours; film screenings, four to six hours. Introduction to historical, industrial, and aesthetic history of American film. Letter grading.

206D. Seminar: Silent Film. (6) Seminar, three hours; film screenings, four to six hours. Discussion of silent film from its beginning in 1895 to transition to sound cinema in 1927 to 1930. Film viewings discussed in terms of genre, national cinema, formal developments, and directors. Readings on film historical and theoretical issues. Letter grading.


208A. Seminar: Film Structure. (6) Seminar, three hours; film screenings, four to six hours. Designed for graduate students. Examination of film conventions, both fictional and nonfictional, and of role of structure in motion picture. S/U or letter grading.

208B. Seminar: Classical Film Theory. (6) Seminar, three hours; film screenings, four to six hours. Study of principal topics and lines of inquiry that characterize theoretical writings of Arnisn, Eisenstein, Bazin, Kraeuter, etc. Letter grading.

208C. Seminar: Contemporary Film Theory. (6) Seminar, three hours; film screenings, four to six hours. Required. Course 208B. Designed for graduate students. Study of redefinition of aims and methods of film theory through contemporary writings. S/U or letter grading.

209D. Animated Film. (6) Seminar, three hours; film screenings, three hours. Designed for graduate students. Fictional film and its relationship to contemporary culture. S/U or letter grading.

210D. Animated Film. (6) Seminar, three hours; film screenings, three hours. Designed for graduate students. Fictional film and its relationship to contemporary culture. S/U or letter grading.

210. Viewing and Reading Media. (4) Lecture, three hours; media viewings, three hours. Study engaged media originating on different platforms and deriving from different modes of production, cultural locations, and various critical approaches. Each approach considered in relation to role of media in society. May be repeated once for credit. S/U or letter grading.

211B. Seminar: Literature of Film. (6) Seminar, three hours; film screenings, three hours. Designed for graduate students. Studies in ways film affects and is affected by social behavior, belief, and value systems; considered in relation to role of media in society. May be repeated once for credit. S/U or letter grading.

220. Seminar: Television and Society. (6) Seminar, four hours; screenings/discussion, three hours. Designed for graduate students. Study of ways television forms affect and are affected by social behavior, belief,
and value systems; study of technological and economic aspects of medium. May be repeated once for credit. S/U or letter grading.

221. Seminar: Film Authors. (6) Seminar, three hours; film screenings, four to six hours. Designed for graduate students. Studies of patterns, styles, and themes of such genres as Western, gangster, war, science fiction, comedy, etc. May be repeated twice for credit. S/U or letter grading.

222. Seminar: Film Genres. (6) Seminar, three hours; film screenings, four to six hours. Designed for graduate students. Studies of patterns, styles, and themes of such genres as Western, gangster, war, science fiction, comedy, etc. May be repeated twice for credit. S/U or letter grading.

223. Seminar: Visual Perception. (6) Seminar, three hours; film screenings, three hours. Aesthetic, psychological, physiological, and phenomenological approaches to vision as they relate to ways in which viewers experience and see film, television, and digital media. Letter grading.

224. Computer Applications for Film Study. (6) Lecture, three hours; film screenings, three hours. Survey of computer applications relevant to film study, principally computer-vidiotic systems and image capture technology. S/U or letter grading.

225. Seminar: Videogame Theory. (6) Seminar, three hours; laboratory, three hours. Videogame theory, with exploration of new media, rather than looking at history, industrial practice, social effects, or any other of many interesting questions that games also raise. Acknowledgment of roots in film, television, and media and investigation of emerging videogame field. S/U or letter grading.

CM229. Contemporary Topics in Theater, Film, and Television. (2) (Same as Theater CM229.) Lecture, two hours; screenings, two hours. Limited to junior/senior and graduate students. Designed for film and television students. Examination of creative process in theater, film, and television, with consideration of writing, direction, production, and performance. Overview of individual contributions and development of the medium. S/U or letter grading.

242. Digital Imagery and Visualization. (4) Lecture, three hours; laboratory, three hours. Interactive hands-on exploration of techniques of digital still imaging and aesthetics of digital image, in context of examining dynamics of cultural constructions and visual codes. Students conceive and produce several digital image artifacts. May be repeated once for credit. Concurrently scheduled with course C142. Letter grading.

243. Moving Digital Image. (4) Lecture, three hours; laboratory, three hours. Investigation of different ways of creating and manipulating linear moving images (digital video) on desktop computers, exploring both creative and theoretical aspects of this production environment. Students conceive and produce number of short projects. Concurrently scheduled with course C143. Letter grading.

244. Interactive Multimedia Authoring. (4) Lecture, three hours; laboratory, three hours. Introduction to expressive and aesthetic potential of interactive digital media and its theoretical issues. Exploration of methodology and tools for media integration, interface design, and interactive audiovisual construction. Students conceive, produce, and master individual interactive multimedia projects. May be repeated once for credit. Concurrently scheduled with course C144. Letter grading.


246. Seminar: Issues in Electronic Culture. (6) Seminar, three hours; laboratory, three hours. Critical studies seminar with major hands-on laboratory component that explores digital technologies on contemporary culture and aesthetics. Students do laboratory projects using visualization, image manipulation tools, and Internet authoring tools. Letter grading.


248. Advanced Digital Media Workgroup. (4) Laboratory, two hours; discussion, four hours. Designed for students with previous laboratory course experience to provide opportunity to create larger-scale digital media works with advanced software tools and techniques in small process-oriented, creative workshop environment. May be repeated twice for credit. Concurrently scheduled with course C148. Letter grading.

270. Seminar: Film Criticism. (6) Seminar, three hours; film screenings, four to six hours. Designed for graduate students. Focus on analysis and evaluation in relation to central works of cinema. May be repeated once for credit. S/U or letter grading.

271. Seminar: Television Criticism. (6) Seminar, four hours; screenings/discussion, three hours. Designed for graduate students. Analysis of major forms of television production and criticism it has elicited. May be repeated once for credit. S/U or letter grading.

272. Seminar: Contemporary Film and Television Criticism. (6) Seminar, three hours; film and television screenings, four to six hours. Limited to Film and Television PhD candidates. Study and practice of analytic and critical response, with emphasis on contemporary film and television. S/U or letter grading.

274. Research Design 1: Initial Research Design. (6) Seminar, three hours. Introduction to components of dissertation prospectus including development of fields of study, situating one's work in relation to fields of audio/visual material. Study helps prepare students for completion of research questions and analysis of data. Letter grading.

274A. Research Design 1: Initial Research Design. (8) Seminar, three hours. Development of fields of study, situating one's work in relation to fields of audio/visual material. Study helps prepare students for completion of research questions and analysis of data. Letter grading.

274B. Research Design 2: Bibliography. (6) Seminar, three hours. Designed for second-year Film and Television PhD students. Examination of general principles that govern formulation of major research projects and preparation of prospectus for PhD dissertation. S/U or letter grading.

274C. Research Design 3: Writing Prospectus. (6) Seminar, three hours. Designed for third-year Film and Television PhD students. Examination of general principles that govern formulation of major research projects and preparation of prospectus for PhD dissertation. S/U or letter grading.


276. Seminar: Non-Western Films. (6) Seminar, three hours (additional hours as required); film screenings, two hours. Designed for graduate students. Study of aesthetic and ideological impulses of selected films from Asia, Africa, and Latin America. S/U or letter grading.


282A. TV Development 1. (4) Seminar, three hours. Basic techniques and training in scriptwriting and contemporary industry production and business practices. Development of original show concepts and pitch for review and feedback by class, instructor, and guests. Letter grading.

282B. TV Development 2. (4) Seminar, three hours. Advanced analysis of contemporary shows and contemporary industry production and business practices. Continued development of original show concepts and series proposals for review and feedback by class, instructor, and guests. Letter grading.

283A. Fundamentals of Writing for Television. (4) Lecture, three hours. Comprehensive overview of today's television landscape for writers, with emphasis on new structures and formats ushered in by on-demand, digital television. Letter grading.

283B. Writing Half-Hour Comedy Pilot and Series Bible. (6) Seminar, three hours. Enforced requisite: course 430. Examination of basics of half-hour pilot format, style, and content, and learning of principles behind network needs and choices in writing pilots. Workshop in which to discuss ideas and issues with class and instructor. Weekly progress on original half-hour pilot and series bible required. Letter grading.

283C. Running Television Comedy Room. (4) Seminar, three hours. Enforced requisite: course 283B. Practical knowledge about skills necessary to be writer/executive producer of half-hour comedy show. Focus on community building, collaboration, and analysis and evaluation in relation to central works of writers' room, as well as breaking stories, writing, and rewriting television scripts. Letter grading.

284A. Writing One-Hour Drama Speculative Episode. (6) Seminar, three hours. Writing and analysis of television drama shows and contemporary industry production and business practices. Students write speculative (spec) episode for existing one-hour drama series. Letter grading.

284B. Writing One-Hour Drama Pilot and Series Bible. (6) Seminar, three hours. Enforced requisite: course 430. Examination of basics of drama pilot format, style, and content, and learning of principles behind network needs and choices in writing pilots. Workshop in which to discuss ideas and issues with class and instructor. Weekly progress on original drama pilot and series bible required. Letter grading.

284C. Seminar, four hours. Enforced requisite: course 284B. Practical knowledge about skills necessary to be writer/executive producer of one-hour drama show. Focus on community building, collaboration, and analysis and evaluation in relation to central works of writers' room, as well as breaking stories, writing, and rewriting television scripts. Letter grading.

287A. Introduction to Art and Business of Producing I. (4) Seminar, three hours. Enforced requisite: course 287A and presents continuation of study of development, production, and distribution of feature films for worldwide theatrical market, including identifying material, attracting elements, and understanding basics of studio and independent financing and distribution. S/U or letter grading.

287B. Introduction to Art and Business of Producing II. (4) Seminar, three hours. Enforced requisite: courses 287A, 287B. Builds on principles taught in course 287A and presents continuation of study of development, production, and distribution of feature films for worldwide theatrical market, including identifying material, attracting talent elements, and understanding basics of studio and independent financing and distribution. Minimum of two unproduced screenplays to be presented for review by class and instructor to begin identifying potential thesis projects. S/U or letter grading.

288A. TV Development 1. (4) Seminar, three hours. Basic techniques and training in scriptwriting and contemporary industry production and business
Completion of written outline for original projects and pitching of primary projects to panel of industry execu- tives for further feedback. S/U or letter grading.

282A-288B. Feature Film Development I, II, III (4-4-4) Lecture, 288A is requisite to 288B. Practical hands-on approach to understanding and implementing producer’s role in development of feature film screenplay and negotiating particulars of production process. Through in-class discussions, script analysis, story notes, and select guest speakers, exposure to various entities that comprise feature film development process. S/U or letter grading. 288B. Practical hands-on approach to understanding and implementing proper technique for evaluating screenplays through writing of coverage. 288B. Deeper evaluation of screenplay through writing of story notes.

289A. Current Business Practices in Film and Television. (4) Discussion. Three hours. Prerequisite: course C247. Designed for graduate students. Examination of current status of financing/production/distribution agreements, union agreements, music, copyright, etc., necessary to understand film and television industry. S/U or letter grading.

289B. Strategy. (4) Lecture, three hours. Course 289A is not requisite to 289B. Examination of business realities of industry, with focus on techniques for analyzing behavior, profitability, and overcoming obstacles to achieving results as producer, writer, or director. Assignments designed to assist students in articulating new goals and helping them effectively transition from classroom to their careers in entertainment industry. S/U or letter grading.

289C. Independent Spirit: Creative Strategies for Financing and Distributing Independent Features. (4) Lecture, three hours. Course 289B is not requisite to 289C. Key insights into financing and distribution of independent or specialty films. Topics include film finance, production, marketing, distribution, agents, and new technology, with emphasis on applying this knowledge to individual student projects. S/U or letter grading.

290A. Thesis Workshop 1. (4) Seminar, three hours. Forum for roundtable strategy sessions and mock story meetings with instructor, students, and various industry guests. Development of one story idea for thesis project. S/U or letter grading.

290B. Thesis Workshop 2. (4) Seminar, three hours. Forum for roundtable strategy sessions and mock story meetings. Students must have made concrete weekly progress on thesis project and adapt strategy based on feedback received. Development of marketing and business strategies, with every story idea set up in course 290A. S/U or letter grading.

290C. It’s a Wrap: Preparation for Your Entertainment Career. (4) Seminar, three hours. Final stages of thesis preparation for evaluation. Guidance provided by instructor on how to effectively present selected project. Requirements include industry-related book reports, script analysis, pitching selected concept, weekly research to understand marketplace, accumulation and updating of data, and justification for potential buyers comprised of industry professionals. S/U or letter grading.

291A. Studios versus Independents: Navigation Process. (4) Lecture, three hours. Tools necessary for producer to navigate entertainment industry. Topics discussed through lectures and guest speakers include impact of difficulty to navigate relationships between art and commerce in craft of filmmaking, rapid advance of new technology, demand for new means of building finance capital for emerging producing entities, and what future may hold for truly independent filmmaker. S/U or letter grading.

291B. Marketing and Distribution. (4) Lecture, three hours. Course 291A is requisite to 291B. Examination of numerous groups that are responsible for specific marketing components and make up marketing department, in-theater marketing, trailers, publicity, promotions, research, and media. Mechanics and levels of intuition required to make sure movies are seen by public. S/U or letter grading.

291C. Feature Film Distribution and Exhibition. (4) Lecture, three hours. Course 291B is not requisite to 291C. Investigation of philosophy, structure, and major players in film entertainment industry, with emphasis on film distribution and exhibition. Through lectures, readings, and guest speakers, exploration of interrelated arenas of production, marketing, business affairs, media, and impact of international market on distribution and exhibition of studio releases. S/U or letter grading.

292A. Overview of Network Television Management. (4) Lecture, three hours. Designed to expand basic understanding of network and cable television business. Exploration of role of showrunner, executives from networks and production companies, packaging agents, and studios responsible for developing and creating programming. S/U or letter grading.


294A. Contracts and Negotiation. (4) Lecture, three hours. Survey of range of contracts included in studio productions, including literary submission and option agreements, writer collaboration agreements, coproduction agreements, music rights license, etc. Actual studio agreements referenced to illuminate potential consequences of each transaction. Negotiation strategy exercises. S/U or letter grading.

294B. Entertainment Law, Business Practices, and Negotiation Strategies. (4) Lecture, three hours. Course 294A is not requisite to 294B. Introduction to feature-length motion picture business law from perspective of independent and studio producer. Students establish working knowledge of entertainment law and business practices through basic understanding of intellectual property and business considerations in connection with development, production and distribution, material terms of fundamental rights and talent agreements, and negotiation strategy. S/U or letter grading.

294C. International Financing and Distribution. (4) Lecture, three hours. Course 294B is not requisite to 294C. Legal-based course dealing with independent finance and distribution of feature films. Topics include fundamentals of film financing, domestic distribution, international distribution, European coproductions, role of foreign sales agents and of bankers and commercial coproduction. S/U or letter grading.

295A. Art of Presentation. (4) Lecture, three hours. Cultivation of skills needed for students to present themselves and their project goals with clarity and precision to industry professionals. Oral presentations designed to enhance student ability to deliver convincing arguments on range of topics. S/U or letter grading.

295B. Advanced Film and Television Producing Workshop for Producers, Writers, and Directors. (4) Lecture, three hours. Course 295A is not requisite to 295B. Designed to help producers, as well as screenwriters and directors, focus on networking opportunities and to develop strategies to bring their feature and television projects to marketplace. Case-study documents (drafts of screenplays, daily reports, etc.) from current or recently produced projects provided. S/U or letter grading.

295C. Advanced Producing: Role of Successful Producer. (4) Lecture, three hours. Designed to provide producers with comprehensive understanding of business acumen included in purchasing scripts for studio and independent projects, and an understanding of how to through script analysis and in-class discussions, students encouraged to examine not just story elements, but marketing assets inherent in pieces of material. S/U or letter grading.

296A. Role of Talent Agencies. (4) Lecture, three hours. Introductory overview of various departments at agencies, including motion picture literary, talent, staff writers, and television and advertisement of various interactions among each. Exercises encourage producers, writers, and directors to learn how to work effectively with individuals at talent agencies. S/U or letter grading.

296B. Who Represents Me? (4) Lecture, three hours. Course 296A is not requisite to 296B. In-depth analysis of different forms of representation offered by agents, managers, busines managers, and lawyers and detail of legal rights and responsibilities of each. Exercises require students to represent rights holders in series of potential projects. S/U or letter grading.

297A. Digital Media Producing 1. (4) Seminar, three hours. Overview of changing world of storytelling through development of new technologies and new media. Conceptualization and pitch of innovative, original digital media concepts with interactive or participatory story elements and feedback by instructor and producers. S/U or letter grading.


297C. Digital Media Producing 3. (4) Seminar, three hours. Overview of changing world of storytelling through development of new technologies and new media. Development of short teaser trailer or website using digital and web-based resources to promote student original digital media project proposal. S/U or letter grading.

298A. Special Studies in Film and Television. (2 to 6) Seminar, three hours; film screenings, three hours. Designed for graduate students. Seminar study of problems in film and television, organized on topic basis. May be repeated once for credit. S/U or letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, etc. Teaching apprentices receive guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

400. Film Image Design Laboratory. (4) Lecture, two hours; laboratory, six hours. Limited to graduate film and television students. Conception and design of nonnarrative film imagery. One-minute experiments in relation of meaning to technique, including manipulation of optics, photchemistry, elements of electronic processes, and display of time and motion. May be repeated once for credit. S/U or letter grading.

400B. Introduction to Cinematography II. (2) Lecture, three hours; laboratory, three hours. Continuation study of cinematography with emphasis on lighting. Instructor meets individually with teams of director/cinematographer to prepare for shooting six-minute projects. Letter grading.

400F. Film Analysis for Filmmakers. (4) Lecture, screenings, five hours. Limited to graduate film and television students. Drawing heavily from array of historical examples, examination of many expressive screenwriting, directing, and digital art forms. Unifying theory and practice, presentation of approach to viewing great films of past that empowers filmmakers to use sound and images to tell original stories in present. Focus during present. Various exercises in openings in areas of writing, design, cinematography, editing, sound, and performance to enable filmmakers to discover their own personal style for telling stories on screen. Letter grading.
402A–402B. Advanced Narrative Directing Workshops. (4 or 8–8) Limited to nine graduate film and television students. Production of 10- to 15-minute fiction short. Letter grading. 402A. Laboratory, six hours; fieldwork, to be arranged. Requisites: courses 405, 409, 410A, 410B, 410C, 433. Students budget and preproduce their projects by end of first term. 402B. Laboratory, 12 hours; fieldwork, to be arranged. Concurrently scheduled with course 402A. In second term students must complete photography on location and/or in studio.

402C. Advanced Narrative Directing Workshop. (4) Laboratory, six hours; fieldwork, required. Courses 403A–403B–402B. Completion of preproduction on projects started in courses 402A and 402B. Letter grading.

C403A-C403B-C403C. Advanced Documentary Workshops. (4 to 8 each) Lecture/discussion/laboratory, 16 hours. Letter grading. Requisites: courses 409, 410A, 410B, 410C, 433. Limited to graduate film and television students. Production of advanced individual documentary film or video projects. Students conceptualize, research, write, shoot, edit (on location), and edit projects to completion. May be repeated once for credit. Concurrently scheduled with courses C186A-C186B-C186C. S/U or letter grading.

404. Emerging Techniques and Technologies in Cinematography. (4) Lecture, four hours; laboratory, two to four hours. Requisites: courses C186A-C186B-C186C. S/U or letter grading. May be repeated once for credit. Concurrently scheduled with course 404B. Limited to graduate film and television students. Production of 20-minute abstract or experimental film, video, or multimedia project. Students prepare and direct six-minute films and serve in preassigned crew positions for each other. Letter grading.

404A-404B. Advanced Abstract/Experimental Media Workshops. (8–8) Lecture/discussion/laboratory, 12 hours; fieldwork, to be arranged. Requisites: courses 405, 409, 410A, 410B, 410C, 433. Limited to 10 students per section. Production of 20-minute abstract or experimental film, video, or multimedia project. Students plan, design, and shoot their projects in first term and work as crew for each other in rotating assignments. Students must complete postproduction of their projects. S/U or letter grading.

404C. Advanced Abstract/Experimental Media Workshop. (8) Lecture/discussion/laboratory, 12 hours; fieldwork, to be arranged. Requisites: courses 404A, 404B. Completion of all stages of production and postproduction on projects started in courses 404A and 404B. Letter grading.

405. Digital Image and Manipulation on Set and Post Production. (4) Lecture, two hours; laboratory, one hour. Lecture, two hours; laboratory, one hour. Emphasis on principles of cinematography, with emphasis on electronic exposure control, and post-production. Requisite: course 417. Letter grading.

405A. Digital Editing. (4–4) Studio, four hours; laboratory, to be arranged. Individual instruction in Avid nonlinear editing system. S/U or letter grading.

405B. Avid Editing. (4–4) Studio, four hours; laboratory, to be arranged. Individual instruction in Avid nonlinear editing system. S/U or letter grading.

409. Directing Actors for Camera Workshop. (4) Workshop, six hours; laboratory, to be arranged; laboratory preparation, two to four hours. Limited to MFA production program students. Team-taught with five weeks designed to give director/actor/camera techniques, and five weeks to offer basic strategies to elicit good performances from actors. Emphasis on problems faced when directing actors for film. S/U or letter grading.

410A. Symposium. (2) Seminar, three hours. Limited to and required of first-year MFA production program students. Exploration of principal concepts of film and television production within the context of preproduction, production, and postproduction, providing forum for synthesis of knowledge gained in various first-year technical craft courses. Exploration of strategies for learning production within academic environment. May be repeated for credit. Letter grading.

410B. Cinematography. (2) Seminar, three hours. Limited to and required of first-year MFA production program students. Production workshop designed to give hands-on experience in all aspects of film production. Tools to be used include a complete digital tool kit. Seminar writes/directs/edits six-minute film. May be repeated for credit. Letter grading.

410C. Postproduction. (2) Seminar, three hours. Limited to and required of first-year MFA production program students. Production workshop designed to give hands-on experience in all aspects of film production (tools and practicum of medium) as each student writes/directs/edit six-minute film. May be repeated for credit. Letter grading.

410D. Postproduction Sound. (2) Seminar, three hours. Requisites: courses 405, 409. Limited to and required of first-year MFA production program students. Technical and aesthetic aspects of postproduction sound recording, editing, and mixing: focus for film and media production. Application of principles of sound design to student films while using UCLA’s John Candy Room and Scoring Stage for Automatic Dialogue Replacement (ADR) and Foley soundstage. Students record ADR, mixing, and selection and use of microphones and mixing consoles, and incorporation of Final Cut Pro and Pro Tools LE for recording, editing, and mixing. Emphasis on practical skill development, hands-on practices are contextualized and motivated by creative and conceptual goals. Letter grading.

411A. Modes of Making: Experimental. (4) Seminar, three hours: laboratory, one hour. Exploration of multiple and alternative modes of filmmaking and platforms for creative expression dedicated to wide variety of media types and invited to undertake their own experiments, paying equal attention to form and content. Each student completes series of short-to-longer assignments for each semester, which is contextualized and motivated by creative and conceptual goals. Letter grading.

411B. Modes of Making: Documentary. (4) Lecture, three hours: laboratory, one hour. Exploration of craft and form of documentary filmmaking through series of synchronous and asynchronous film projects. Viewing, discussion, and critique of video projects, interview, video, animation, and hybrid documentary approaches. Students work in partnerships and small crews to rotate and produce work in collaboration. Contemporary debates around documentary representation and film ethics are incorporated into classroom discussions and critiques. Letter grading.

411C. Modes of Making: Narrative Fiction. (4) Lecture, four hours. Students work individually and in teams to complete small-scale film projects and exercises to develop specific building blocks needed for narrative fiction filmmaking. Course modules provide students with each major element of narrative filmmaking, from preproduction to completion. Students gain experience with each key crew position and develop basic collaborative skills needed to work effectively with—and as part of—film crew. Letter grading.

412A. Tools and Techniques: Experimental. (8) Lecture, four hours; laboratory, four hours. Emphasis on both technical and aesthetic components of filmmaking, and building with each iteration toward increasingly sophisticated and nuanced uses of all components of filmmaking process. Works in tandem with course 411A to develop hands-on skills needed for craft of media making and narrative filmmaking. Taught by rotating group of specialist faculty. Topics and skills vary by term in coordination with assignments and skills needed to support course 411A. May also focus on practical skill development, hands-on practices are contextualized and motivated by creative and conceptual goals. Letter grading.

412B. Tools and Techniques: Documentary. (8) Lecture, four hours: laboratory, one hour. Emphasis on both technical and aesthetic components of filmmaking, with each iteration toward increasingly sophisticated and nuanced uses of all components of filmmaking process. Works in tandem with course 411B to develop hands-on skills needed for craft of media making in nonfiction mode. Taught by rotating group of specialist faculty. Topics and skills vary by term in coordination with assignments and skills needed to support course 411B. Although focus on practical skill development, hands-on practices are contextualized and motivated by creative and conceptual goals. Letter grading.

412C. Tools and Techniques: Narrative Fiction. (4) Laboratory, four hours. Provides hands-on support and technical knowledge for students in parallel with their crew-based productions in course 411C. Students deepen their skills in key production roles including cinematography, sound, and editing. Meetings are divided among lecture, individual presentations, and laboratory. Letter grading.

413. Themes and Issues. Foundations of Directing. (4) Lecture, three hours. Provides interpretive and creative toolkit for subsequent undertakings in filmmaking, media making, and audio-visual storytelling. These source materials are agnostic with regard to certain conventions of origin (genre, format, path, duration) and yet deeply rooted in politics and histories of representation that catalyze and inform racial, gendered, sexual, and ethnic lenses and visions. Letter grading.

C416. Intermediate Cinematography. (4) Lecture, two hours; laboratory, four hours. Intermediate study of principles of cinematography, with emphasis on exposure, lighting, and selection of film, camera, and lenses. Concurrently scheduled with course C118. Letter grading.

C417. Lighting for Film and Television. (4) Lecture, two hours; laboratory, six hours. Limited to graduate film and television students. Lectures, supervised exercises on stage or in exterior, screenings of scenes, and discussions aimed at learning to master lighting to create appropriate mood or atmosphere of premediated scene recorded on film or through electronic system. May be repeated twice for credit. Concurrently scheduled with course C157. Letter grading.

418. Cinematography and Directing. (4) Lecture, two hours; laboratory, six hours. Requisite: course 417. Limited to graduate film and television students. Supervised filming of short dramatic projects on sound stage and at exterior locations that explore complexity of process, emphasizing balance and collaboration enhanced by students’ mastery in its varied technical, production, and creative aspects. Letter grading.

419. Advanced Cinematography. (4) Lecture, two hours: discussion, one hour; laboratory, one hour. Requisites: courses 417, 418. Limited to graduate film and television students. Advanced study of principles of cinematography, with emphasis on exposure, lighting, and selection of film, camera, and lenses. S/U or letter grading.


423A. Direction of Actors for Film and Television. (4) Lecture, four hours; laboratory. Preparation: first film project. Limited to graduate film and television students. Advanced study of principles of cinematography, with emphasis on electronic exposure control, lighting, formats, selection of film, camera, and lenses. S/U or letter grading.

actors before camera. Emphasis on developing techniques to immediately enhance communication between director and actor on set in order to maintain continuity of scene. S/U or letter grading.

430. Introduction to Film and Television Writing. (6) Lecture, three hours. Introduction to film and television writing. S/U or letter grading.


435. Advanced Writing for Short Film and Television Screenplays. (4) Discussion, three hours. Requisite: course 410C. Limited to graduate film and television students. Conception, development, and writing of dramatic film script to be produced as advanced or thesis project. Letter grading.

437. Adaptation for Screen. (8) Seminar, three hours. Enforced requisite: course 430. Students analyze techniques of dramatic adaptation and apply them by writing their own adaptations. Students read selected texts and view their filmed versions in order to learn various approaches to adaptation. Students workshop their own screenplays adapted from preselected list of texts. Letter grading.

438. Advanced Screenwriting: Rewrite. (8) Seminar, three hours. Enforced requisite: courses 430, 434. Workshop in which students rewrite first draft of original screenplay that was written in course 434. Discussion of problems peculiar to rewriting: how to take notes and make them one's own; how to deep-read on line-by-line basis of script; overall rewriting strategies; what is best for situation and script. Reading and rewrite rewritings. Particular attention directed to how people talk about scripts that are not their own; how they avoid giving feedback based on how they might write something and how they move toward giving feedback that honors intention and integrity of script. May be repeated once for credit. Letter grading.

440. Festival Strategies. (4) Seminar, three hours. Exploration of film, television, streaming, and specialized festivals. Emphasis on strategies and practical knowledge necessary to navigate local, regional, and global festivals, whether as producer, director, animator, screenwriter, or scholar/programmer. Discussion and exchange of diverse ideas, perspectives and real-world experiences among students, faculty, and special industry guests. S/U or letter grading.


452B. Postproduction Sound. (2) Laboratory, three hours. Limited to Production MFA students. Technical and aesthetic aspects of postproduction sound recording, editing, and mixing for film and television. Letter grading.

C452C. Digital Audio Postproduction. (4) Lecture, three hours; laboratory, three hours. Limited to Film and Television majors. Through discussion, demonstrations, and laboratory assignments, exploration of digital audio tools and procedures available to today's filmmakers. Coverage of many technical, equipment, and software-related steps, with emphasis on creative process. Concurrently with course C152C. Letter grading.

453. Postproduction Sound Design. (2 to 4) Lecture, three hours. Designed to give film students insight into world of postproduction sound and to provide knowledge and tools necessary to complete postwork on their projects. Exploration of all areas of postproduction sound design from editing to final mixing. How to effectively use sound design to enhance storytelling capability of films, evaluate music choices, pick composer, music edit, create sound design to enhance story points, discover design opportunities, and select right sound effects. Concurrently with course C452C. Letter grading.

454B. Advanced Film Editing. (4) Lecture, three hours; laboratory, one hour. Preparation: submission of rough cut of existing project or proposal to edit work of another director. Limitations and limitations students in postproduction phase with advanced knowledge of organization and operation of postproduction process. Students may also propose to edit significant scene given to them by instructor. Concurrently scheduled with course C154B. Letter grading.

454C. Digital Workflow. (2 to 4) Lecture, three hours; laboratory, two hours. Limited to departmental majors. Through discussions, demonstrations, outside speakers, and laboratory assignments, demystification of ever-changing world of digital workflow. Students plan, schedule, and budget their overall workflow in preproduction. May be repeated once for credit. Concurrently scheduled with course C158. Letter grading.

459A–459B. Directing for Film and Television. (4–4) Lecture, three hours. Limited to graduate film and television students. Analysis and exploration, with specific scenarios, of different approaches in directing, in a classroom setting to approach same literary material in theater, film, and television. S/U or letter grading.


466. Creative Location Film Production. (8) Lecture, four hours; discussion, four hours; laboratory, to be arranged. Limited to graduate film and television students. Problems of location, production, direction, and cinematography in various real-life practical locations. Practical application of solving problems and communication within limitations. Concurrently scheduled with course C168. Letter grading.

468. Commercial Location Film Production. (8) Lecture, four hours; discussion, four hours; laboratory, to be arranged. Limited to directing or producing program students. Problems of location, production, direction, and cinematography in various real-life practical locations. Practical application of solving problems and communication within limitations. Concurrently scheduled with course C168. Letter grading.

469. Contemporary Topics: UCLA Filmmakers. (4) Seminar, four hours. Lecture and examination of both inside and within traditional studio system, identification of materials and tools utilized to such purposes, exploration of story and themes of works within larger political and cultural and social development and articulation of personal storytelling voice rooted in specific of history, background, and life experience. Designed as series of online master classes with visiting filmmakers, their collaborators, and occasional guest scholars participating in moderated discussions. Each class concludes with informal discussion with students. Weekly contextual readings and screenings. S/U or letter grading.

472. Commercials. (4) Lecture, four hours. Limited to MFA students. Designed to give students opportunity to explore one very specific kind of filmmaking. Through exploration of advertising, students gain insight about Commercials and exhibition in American and foreign markets and how to work with distinct confines of commercial genre. Letter grading.


C481B. Writing for Animation. (4 or 8) Lecture, six hours; studio, to be arranged. Requisite: course C481A or consent of instructor. Research and practice in creative writing and planning for animated film. May be repeated for maximum of 16 units. Concurrently scheduled with course C181B. S/U or letter grading.

C481C. Animation Workshop. (4 or 8) Studio, six hours. Enforced requisite: course 181A, 181B, 181C. Advanced organization and integration of various creative arts used in animation to form complete study of selected topic. May be repeated for maximum of 16 units. Concurrently scheduled with course C181C. S/U or letter grading.

482A–482B. Advanced Animation Workshops. (4 or 8 each) Lecture, three hours; studio, to be arranged. Requisites: courses 181A, 181B, 181C. Advanced organization and integration of various creative arts used in animation, resulting in production of complete animated film. May be repeated for maximum of 16 units. S/U or letter grading.

483A. Advanced Computer Animation. (4 to 8) Lecture, six hours; laboratory, four hours. Requisites: courses C481A, C481C, 489A. Recommended: course C481B. Course 483A is requisite to courses 483B, which is requisite to 483C. Creation and production of complete and original advanced computer animated film. Letter grading.

483B. Advanced Computer Animation. (4 to 8) Lecture, six hours; laboratory, four hours. Requisite: course 489A. Creation and production for complete and original advanced computer animated film. Letter grading.

483C. Advanced Computer Animation. (4 to 8) Lecture, six hours; laboratory, four hours. Requisite: course 489A. Creation and production for complete and original advanced computer animated film. Letter grading.

484A–484B. Visual Thinking and Organization for Animation. (4–4) Lecture, six hours; laboratory, four hours. Concurrently scheduled with course C484B. Systematic approach to analyzing and communicating two-dimensional and three-dimensional form and applying traditional compositional approaches to animation. May be repeated for maximum of 16 units. Letter grading.

485. Legal Issues in Animation. (4) Lecture, three hours; laboratory, three hours. Examination of legal issues in animation, including copyright, contracts, constitutional issues in animation, competing rights, employer-employee relationships, and representation in animation. S/U or letter grading.

486. Directed Individual Study: Preparation to Advance to Candidacy for MFA in Animation. (2 to 4) Tutorial, four to eight hours. Limited to MFA production program students. Specialized development and organization of proposed thesis project prior to advancement to candidacy. Letter grading.

487. Directed Individual Study: Postproduction Laboratory. (4) Laboratory, eight hours. Limited to MFA production program students. Preparation of projects in final stages of postproduction. May not be repeated. S/U or letter grading.

488A. Interactive Animation. (4 to 8) Lecture, six hours; laboratory, to be arranged. Requisite: courses C481A, C481C, 489A. Organization and integration of various creative arts used in animation and interactive media to form complete study of selective interactive animation project. May be repeated for maximum of 16 units. Letter grading.

488B. Advanced Interactive Animation. (4 to 8) Lecture, six hours; laboratory, to be arranged. Requisite: course 488A. Organization and integration of various creative arts used in animation and interactive animation to form complete project of selected interactive topic. May be repeated for maximum of 16 units. Letter grading.

489A. Computer Animation in Film and Video. (4 to 8) Lecture, six hours; laboratory, four hours; other, to be arranged. Preparation: completed animated film. Requisites: courses 181A, 181C. Instruc- tion in and supervised production of computer animation. May be repeated for maximum of 16 units. Letter grading.
Faculty Committee

Akhil Gupta, PhD (Anthropology)
Joseph F. Nagy, PhD (English)
Janet M. O’Shea, PhD (World Arts and Cultures/Dance)
Amy C. Rowat, PhD (Integrative Biology and Physiology)
Wendelin M. Slusser, MD, MS (Community Health Sciences)

Overview

The Food Studies minor uses food—its production, preparation, sharing, consumption, and disposal—as a lens for understanding individual, sociocultural, and global issues. The study of the role of food in multiple complex aspects of life builds bridges across all areas of the academy, including arts, anthropology, environment and sustainability, folklore and mythology, geography, history, humanities, law, psychology, public health, public policy, and other fields.

Undergraduate Minor

Food Studies Minor

Through interdisciplinary courses and a capstone experience, students in the minor acquire a unique insight of food studies and emerge with a new intellectual framework for understanding this expanding area of study.

The capstone requirement gives students the opportunity to either put their studies into practice through internship or complete independent research in a food-related area of interest.

Admission

To be eligible for the Food Studies minor, students must be in good academic standing. Applications for the minor will be accepted after students have completed 12 units with a minimum average of 2.0. Students must be accepted to the program advanced students. Internship at various food, television, or theater facilities accentuating creative contribution, organization, and work of professionals in their various specialties. Given only when projects can be scheduled. S/U or letter grading.

Undergraduate Minor

Food Studies Minor

Through interdisciplinary courses and a capstone experience, students in the minor acquire a unique insight of food studies and emerge with a new intellectual framework for understanding this expanding area of study.

The capstone requirement gives students the opportunity to either put their studies into practice through internship or complete independent research in a food-related area of interest.

Admission

To be eligible for the Food Studies minor, students must be in good academic standing and have completed or be enrolled in the required courses. Students must have an overall grade-point average of 2.0 or better. Successful completion of the minor is indicated on the transcript and diploma.

Food Studies

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

27. Critical Thinking about Food and Science Publications. (5) Lecture, two hours; discussion, one hour. Development of process of further thinking about stories behind conclusions from nutrition studies and food scientific literature. Exercises, discussions, reports, and readings designed to provide practices to become critical thinker in food science and literature. P/NP or letter grading.

35. Visual Representations of Food from Antiquity to Present. (5) Lecture, three hours; discussion, one hour. Examination of food imagery in visual art from antiquity to present. Introduction to major movements in Western art history, with primary focus on historical and sociological implications that can be derived from close analysis of visual representations of food, kitchens, markets, and agriculture over centuries. Topics of investigation include diets of ancient Romans as evidenced by floor mosaics and wall paintings of Pompeii; religious symbolism of food during Middle Ages; opulence of Renaissance banquet; common food of common folk; significance of still life paintings; what paintings can tell us about trade; turn-of-century tables; food and eroticism; economics, packaging, and advertising; and food presentations and plating as art form. P/NP or letter grading.

M79. Food Politics: Cultural Solutions to political Problems. (5) Same as World Arts and Cultures M79. Lecture, four hours; discussion, two hours. Examination of issues of environmental and public health effects of intensive and extensive agriculture, influence of corporations on government, animal ethics, food deserts and urban gardening, and food insecurity. Focus on representation of such issues in documentaries, public lectures, memoirs, novels, and visual art, as well as on initiatives to address such problems through policy and activism. P/NP or letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or
other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

99. Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per semester. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

M132. Food Cultures and Food Politics. (Same as English M132.) Three hours. Introduction to interdisciplinary field of food studies, with focus on how literature, art, science writing, and visual culture address political dimensions of food and agriculture in specific contexts. P/NP or letter grading.

133W. Historical Recipes and Recipe for History. (5) Lecture, two hours; discussion, one hour. Requisite: English Composition 3. Introduction to historical methods of studying cultural meaning of food in late Medieval and Early Modern Europe through lens of recipes. How recipes, as historical documents, are related to culture, social interactions, and historical ways of knowing. Introduction to ways that historians attempt to understand and recreate rhythms of daily life through interactive pedagogy and experimental recreation of historical recipes. Students gain working knowledge of historical food studies as interdisciplinary field from historical perspective. Research project documenting original research. Satisfies Writing II requirement. P/NP or letter grading.

M136. Eating Society: Science and Politics of Food from Individual to Planetary Health. (Same as Sociology M136 and M137.) Lecture, three hours; discussion, one hour. Questions of food and health are both individual and social. Students gain skills in understanding relationships between individual eaters, medicine, and social organization of food production and processing through set of research frameworks newly emergent in range of social and health sciences. Topics include individual and social ramifications of microbiome science; understanding how human gut microbes and health are shaped by pasterization, processing, and food safety practices; One Health approaches that encompass human and animal health, discussing examples such as antibiotic resistance and emerging infectious disease as effects of large-scale agriculture; planetary health frameworks that link individual human metabolic health to issues of sustainable agriculture, for example how pesticides and fertilizers tie diets to environmental degradation; and cultural food systems in face of environmental pollution as issue of reproductive health. Letter grading.

M157. Food: Molecules, Microbes, Environment. (4) (Same as Chemistry M157.) Lecture, three hours; discussion, one hour. Requisite: Chemistry 153A. Recommended requisites: Life Sciences 7A, 7B. Study of science of food. Study of food units physical, biological, environmental, social, and behavioral sciences. Use of scientific methods to explain properties of food. Covers range of topics that focus on science of cooking, critical role of microbes in transformation of foods, genetic and environmental concerns related to acquisition, preparation, and consumption of different dietary items on metabolism and physiology. Comprises four major interrelated topics: molecules of food and their sources, science of cooking, acquisition of food, eating, P/NP or letter grading.

159. Food and Health in Global Perspective. (4) Lecture, three hours. Study problematizes and adds depth to common-sense understandings of health and wellness by intervention on relationship between food and health, from critical and holistic perspective, that accounts for interplay of biology and culture within broader historical, societal, and global contexts. Topics include what is meant by healthy eating, epidemiological challenges between food practices and evolutionary biology, as well as particular environments of societies, cultural systems, lifeways, and daily practices; how major global foods have come to their dominance and consequences for health; and influences of food production, distribution, and preparation on health. P/NP or letter grading.

M167. Historical Sociology of Urban/Rural Relations and Food Production. (4) (Same as Sociology M137.) Lecture, three hours; discussion, one hour. Historical examination of food supply and food production in relation to urban and rural regions. Topics include food logistics such as storage, transportation, and distribution, as well as human population growth and migration, famine and hunger, and agricultural advances and environmental impacts. P/NP or letter grading.

M170XP. Food Studies and Food Justice in Los Angeles. (4) (Formerly numbered M170SL.) (Same as Community Engagement and Social Change M170XP) Seminar, three hours; fieldwork, two hours. Interdisciplinary seminar about food systems and justice issues faced by residents of lower-income communities. Reading of relevant disciplines, including but not limited to public health, environmental justice, and public policy. Service-learning component includes meaningful work with off-campus community partners selected by instructor and Center for Community Learning. Letter grading.

M176XP. Making Films about Food. (3) (Formerly numbered M176SL) (Same as Community Engagement and Social Change M176XP and Public Affairs M176XP) Lecture, three hours. Introduction to documentary video production and distribution. Students work on assignments in pairs and small groups to create 8- to 10-minute video about one of several Los Angeles partner organizations that advocate for healthy, local, sustainable food. Consideration, through video production, of challenges posed by existing farming, ranching, and distribution methods, and strategies these groups are pursuing to create more sustainable food pathways. Students look at social media communication strategies to help think through interventions for a food system. After this research, students present their findings on industrial food production and regulations that remain favorable to mass-produced, processed food items. P/NP or letter grading.

M177. Superfoods: Cultural and Global Perspectives. (Same as African Studies M177 and International Development Studies M177.) Seminar, four hours. Exploration of superfoods, which are nutrient rich foods considered beneficial for well-being, health, and longevity, as they are high in minerals, vitamins, and antioxidants. While superfoods have been part of cultures’ diets for centuries, in recent decades they have been researched in scientific and medical communities in connection to increasingly demand and consume foods that are nutritious, organic, and sustainable. It is important also to address issues such as marketing, misinformation, and hyper about superfoods. The modern fascination with superfoods is increasingly important in context of ongoing global inequalities with regards to food access and production. Study addresses paradox that communities cope simultaneously with malnutrition and obesity, and how farming practices for superfoods and staple crops are related. P/NP or letter grading.

M179. Food Activism in Los Angeles: Narrating Pastas, Imagining Futures. (4) (Same as World Arts and Cultures/L.A. Studies M179) Discussion, two hours. Introduction to history and praxis of local interventions into food insecurity and food oppression, such as community gardens, pop-up markets, and care farms. Through ethnographic and oral history methodologies, students learn how food activists organize themselves, and mobilize creativity to counteract injustice. Focus on relationships between food access, food oppression, food politics, and food ethics; and social histories of race, class, urban planning and housing discrimination. P/NP or letter grading.

181. Special Topics: Perspectives on Food and Society. (4) Lecture, 90 minutes; discussion, one hour. Variable topics that engage with current societal challenges through lens of food and transdisciplinary approach. Emphasis on food-related issues that impact society from social justice to food access to planetary health. May be repeated for credit with topic and/or instructor change. P/NP or letter grading.

187. Special Topics in Food Studies. (4) Lecture, three hours. Variable topics in one area within food studies. May be repeated for credit with topic and/or instructor change. P/NP or letter grading.

189. Advanced Honors Seminars. (1 Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

195C. Community and Corporate Internships in Food Studies for Capstone. (4) Tutorial, to be arranged; fieldwork, eight to 10 hours. Limited to juniors/seniors. Internship in corporate, governmental, or nonprofit setting coordinated through Center for Community Learning (CCL). Students complete weekly written assignments, attend biweekly meetings with graduate student coordinator, and write final research paper. Faculty sponsor and graduate student coordinator construct series of reading assignments that examine issues related to internship site. Culminates capstone experience requirement for Food Studies minor. Individual contract with site supervisor; CCL coordinator, and faculty sponsor required. Letter grading.

195CE. Community and Corporate Internships in Food Studies. (4) Tutorial, to be arranged; fieldwork, eight to 10 hours. Limited to juniors/seniors. Internship in corporate, governmental, or nonprofit setting coordinated through Center for Community Engagement (CCE). Students complete weekly written assignments, attend biweekly meetings with graduate student instructor, and write final research paper. Faculty mentor and graduate student instructor construct series of reading assignments that examine issues related to internship site. May be repeated for credit with consent of Center for Community Engagement. No more than 8 units may be applied toward major; units applied must be taken for letter grade. May not be applied toward concentration or distribution requirements. Individual contract with supervising faculty member required. P/NP or letter grading.


197. Individual Studies in Foodways, Diet, and Nutrition. (2 to 8) Tutorial, to be arranged. Limited to juniors/seniors. Individual intensive study, with scheduled meetings between faculty member and student. Assigned reading and tangible evidence of mass of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.
199. Directed Research or Senior Project in Food Studies. (4) Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research projects in food studies under guidance of faculty mentor. Culminating paper required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Course

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

FOREIGN LITERATURE IN TRANSLATION

Overview

The following courses, offered in the departments of language and literature, do not require reading knowledge of any foreign language.

Courses

Ancient Near East (Near Eastern Languages and Cultures)

150A. Heroes, Gods, and Monsters: Literature and Epic in Mesopotamia
150B. Survey of Ancient Near Eastern Literatures in English: Egypt

Arabic (Near Eastern Languages and Cultures)

150. Classical Arabic Literature in English
M151. Modern Arabic Literature in English

Armenian (Near Eastern Languages and Cultures)

150A. Survey of Armenian Literature in English
C152. Modern Armenian Drama as Vehicle for Social Critique
C153. Art, Politics, and Nationalism in Modern Armenian Literature

Asian (Asian Languages and Cultures)

151. Buddhist Literature in Translation

Asian American Studies (Asian American Studies)

M173. Topics in Vietnamese Cinema and/or Literature

Central and East European Studies (Slavic, East European, and Eurasian Languages and Cultures)

91. Culture and Society in Central and Eastern Europe
M120. Women and Literature in Southeastern Europe
125. Intervar Central European Prose
C126. Coldwar Central European Culture
127. Central European Culture after Fall of Communism
130. Balkan Cultures in Film and Literature

Chinese (Asian Languages and Cultures)

70. Introduction to Traditional Chinese Literature
70W. Classics of Chinese Literature
131. World Sinophone Literature: Theories and Texts

C150A. Lyrical Traditions
C150B. Chinese Literature in Translation: Traditional Narrative and Fiction
151. Chinese Literature in Translation: Modern Literature
152. Topics in Contemporary Chinese Literature and Culture
M153. Chinese Immigrant Literature and Film

Comparative Literature (Comparative Literature)

All undergraduate courses except course M191P

C151. Valkyries and Dragonslayers: Völsung/Nibelung Tradition

French (European Languages and Transcultural Studies)

14. Introduction to French Culture and Civilization in English
14W. Introduction to French Culture and Civilization in English
16. Society And Self in Early Modern France
160. Francophone Cultures in English
161. French and Francophone Theater in Translation
163. French and Francophone Short Story in Translation
164. French and Francophone Novel in Translation
165. Eco-Citizenship: Encounters with Eco-Citizens in Translation
166. French and Francophone Autobiography in Translation
167. French and Francophone Intellectual History in Translation
170. Nantes: Shape of City in Translation
191A. Variable Topics Research Seminars in Translation

German (European Languages and Transcultural Studies)

50B. Great Works of German Literature in Translation: Romanticism to Present
56. Figures Who Changed World: Cosmopolitanisms within a Global Context
59. Holocaust in Film and Literature
61A. Modern Metropolis: Berlin
102. War, Politics, Art
103. German Film in Cultural Context: Early German Film
104. German Film in Cultural Context, 1945 to Present
109. Jewish Question and German Thought
110. Special Topics in Modern Literature and Culture
112. Feminist Issues in German Literature and Culture
113. German Folklore
114. Fairy Tales and Fantastic
117. German Exile Culture in Los Angeles

Hungarian (Slavic, East European, and Eurasian Languages and Cultures)

121. Survey of Hungarian Literature in Translation

Iranian (Near Eastern Languages and Cultures)

150A. Survey of Persian Literature in English
150B. Survey of Persian Literature in Translation

Italian (European Languages and Transcultural Studies)

42A. Italy through Ages in English: Saints and Sinners in Early Modern Italy
42B. Italy through Ages in English: Modern and Contemporary Italy
42C. Italy through Ages in English: Food and Literature in Italy
46. Italian Cinema and Culture in English
The Gender Studies curriculum challenges the pervasive theory/practice divide within the academy. In both undergraduate and graduate courses, students are taught a broad range of methodological and analytical skills. Core undergraduate courses contextualize foundational theories and key analytic concepts within the study of different historical periods and social movements. In designating these courses, power, knowledge, and bodies, the department identifies three primary areas in which feminist and queer inquiry has been concentrated over time, enabling students to trace grounding concepts, key controversies, and the emergence of new theoretical paradigms.

The department has long enjoyed recognition for its strengths in areas including women’s history, feminist science studies, and gender and the law. Over the past decade, it has become a leading program for interdisciplinary intersectional feminist scholarship on gender, sexuality, race, class, and nationality; and has built a strong reputation in transnational feminist studies, studies of settler colonialism, neoliberalism, racial violence, cultural politics, migration, social movements, affect, visual culture, and disability, as well as feminist policy studies, critical prison studies, women of color feminism, queer of color critique, and queer theory.

### Undergraduate Major

#### Gender Studies BA

The major in Gender Studies may be taken alone or in conjunction with another Letters and Science major. In the case of a double major, no more than five courses may be applied toward both majors.

#### Capstone Major

The Gender Studies major is a designated capstone major. Students are required to complete a senior seminar in which they conduct original research while studying readings that consider how disciplinary and interdisciplinary research has been conducted and critiqued. Through their senior seminar work, students produce a significant work that may include an original research paper, a media project, or an in-depth literature review. They are expected to demonstrate working knowledge of the field of gender studies; understand key theoretical approaches in the study of women, gender, and sexuality; have ability to construct well-written analytic essays and present their work orally; and conduct a research project that involves the consultation of scholarly literature and presentation of evidence to support an argument.

### Learning Outcomes

The Gender Studies major has the following learning outcomes:

- Demonstrated working knowledge of the field of gender studies
- Understanding of key theoretical approaches in the study of women, gender, and sexuality
- Demonstrated ability to construct well-written analytic essays and give an oral presentation
- Conduct a research project that involves the consultation of scholarly literatures and presentation of evidence to support an argument

### Entry to the Major

#### Admission

To be admitted to the major, students must have completed Gender Studies 10, be in good standing, and formally register with the department. They are encouraged to declare their major as early as possible and to discuss their proposed course of study with the undergraduate adviser.

Students are encouraged to draw on diverse UCLA resources in creating their program of study. They may pursue traditional and/or innovative subjects in fields ranging from the humanities and fine arts to the social and life sciences. In addition to courses on the gender studies approved list, students may petition to have diverse courses accepted, including courses outside the College of Letters and Science, independent studies, or field study courses.

Each course applied toward the major must be taken for a letter grade, and students must have a grade-point average of 2.0 or better in gender studies courses to receive credit for completing the program. Courses in which they receive grades of C– or lower may not be applied toward the required courses in the major.

#### Transfer Students

Transfer applicants to the Gender Studies major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one multidisciplinary gender studies course and departmental lower-division required courses.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

### Requirements

#### Preparation for the Major

Required: Gender Studies 10. Students must also complete departmental lower-division requisites, as applicable, for upper-division gender studies courses.

#### The Major

The major is designed to (1) impart core concepts in theory and critical analysis, research design, and methods; and (2) provide students with exposure to a range of feminist and queer scholarship across disciplines. To achieve these goals, the major is divided into three categories.

Required: At least 11 upper-division courses (minimum of 4 units each) as follows: (1) three core courses—Gender Studies 102, 103, 104, (2) seven elective courses; one upper-division tutorial (minimum of 4 units) selected from course 195, 197, or 199 may be applied toward the elective requirement (this limit does not apply to course 198A or 198B), and (3) course 187 (capstone seminar).
Graduate Major

Gender Studies MA, PhD

The graduate program offers Master of Arts (for PhD students only, no terminal master’s degree) and PhD degrees.

Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Gender Studies

Lower-Division Courses

10. Introduction to Gender Studies. (5) Lecture, three hours; discussion, one hour. Introduction to key concepts in study of sex and gender. Exploration of topics such as gender socialization, body image, sexualities, masculinities, and women's subordination. Special emphasis on interaction of gender with other identity markers such as race, nation, ethnicity, sexuality, class, and other differences. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 8 units. P/NP grading. Honors content noted on transcript. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

101W. Writing Gender. (3) Lecture, three hours. Required: English Composition 3. Development of critical reading and writing skills necessary for academic success. Students engage assigned readings in conversation with week’s leading question. Generation and continuous development of paper topics as result of in-class discussions and formal writing exercises. Small writing groups assist students in understanding relationship between how written thoughts are presented and how they are comprehended by different readers. Students gain understanding of writing process, including topic conceptualization, objective of writing, research, organization of thoughts and resources, selection of objects of study, personal writing style, etc. Satisfies Writing II requirement. Letter grading.

102. Power. (4) Lecture, three hours; discussion, one hour (when scheduled). Enforced requisite: course 10. Consideration of how feminist social movements have identified and challenged traditional understandings of power and ways feminist theorists have conceived and critiqued traditional theories of power. How have women’s and other social movements defined and challenged, political, and economic subordination? How have feminist theorists addressed subject of power? How do empire, colonialism, liberalism, neoliberalism, and globalization produce distinctive forms of gendered violence, gendered knowledge, and gendered subjectivities? How are gender and sexuality produced and regulated by law, nation, and economy? P/NP or letter grading.

103. Knowledge. (4) Lecture, three hours; discussion, one hour (when scheduled). Enforced requisite: course 10. Exploration of social production of knowledge about gendered subjects and gender systems. Students engage key issues in feminist theory and feminist epistemology. How do feminist scholars identify and frame research questions? How is knowledge about marginalized subjects produced? How has feminism challenged dominant understandings of knowledge, rationality, objectivity, and scientific method? How have social movements sought to challenge traditional modes of knowledge production? P/NP or letter grading.

104. Bodies. (4) Lecture, three hours; discussion, one hour (when scheduled). Enforced requisite: course 10. Exploration of scholarly theories and histories of body, with focus on topics such as sex identities, sexuality, gendered violence, and reproductive politics. How has science, medicine, and culture sought to distinguish male from female in different historical periods and locations? How have meanings of terms sex and gender varied across time and place? How has gendered body been represented in different visual cultures? How have embodied identities been produced in different historical and geographic contexts? What is relationship between embodiment and desire? P/NP or letter grading.

M104C. Diversity in Aging: Roles of Gender and Ethnicity. (4) Same as Chicana/o and Central American Studies M106B, Gerontology M104C, Public Affairs M103, and Social Welfare M104C.) Lecture, four hours. Exploration of complexity of variables related to diversity of aging population and variability in aging process. Examination of gender and ethnicity within context of both physical and social aging, in multidisciplinary perspective utilizing faculty from variety of fields to address issues of diversity. Letter grading.

105. Topics in Women and Medicine. (4) Lecture/discussion, three hours. Examination of medical conditions and topics of women in context of issues that impact women’s health. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M105A. Premodern Queer Literatures and Cultures. (8) Same as English M101A and Lesbian, Gay, Bisexual, Transgender, and Queer Studies M101A.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3. Survey of discrete period of queer literature from beginning of modernity (circa 1890) up to present day. Works by such writers as Sappho, Plato, Marlowe, Shakespeare, and Thomas Gray may be included. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M105B. Queer Literatures and Cultures, 1850 to 1970. (5) (Same as English M101B and Lesbian, Gay, Bisexual, Transgender, and Queer Studies M101B.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3. Survey of discrete period of queer literature and culture from circa 1850 to 1970. Works by such authors as Walt Whitman, Radclyffe Hall, Gertrude Stein, Virginia Woolf, Langston Hughes, Tennessee Williams, Henry Blake Fuller, and James Baldwin may be included. May be repeated for credit with topic or instructor change. P/NP or letter grading.

Honors Program

The honors program is open to advanced junior and senior Gender Studies majors with a 3.6 grade-point average in gender studies courses and a minimum 3.4 overall GPA who have no outstanding Incomplete grades, and to majors who demonstrate ability to do honors work by submitting a paper to the department chair for approval.

To qualify for honors at graduation, students must successfully complete three successive terms of honors research (courses 198A, 198B, 198C) with their faculty sponsor and receive a grade of B+ or better on their research paper/project. Course 198A may be applied toward the elective requirement; courses 198B and 198C are in addition to the minimum required courses. More information is available from the under-graduate counselor in the department office.

Undergraduate Minor

Gender Studies Minor

The Gender Studies minor augments and enriches study in a traditional field. Students participating in this program are required to complete both a departmental major and the Gender Studies minor.

Admission

To enter the minor, students must have an overall grade-point average of 2.0 or better and formally register with the department under-graduate advisers in 1120 Rolfe Hall. They are encouraged to declare the minor as early as possible.

The Minor

Required Lower-Division Course (5 units): Gender Studies 10. Students must also complete departmental lower-division requisites, as applicable, for upper-division gender studies courses.

Required Upper-Division Courses (24 units): (1) One core course from Gender Studies 102, 103, or 104, (2) 120SL or 187 or an equivalent senior research seminar approved in advance, and (3) four upper-division courses (minimum of 4 units each) from the approved gender studies course list.

Policies

No more than 4 units of courses 195 through 199 may be applied toward the minor requirements. A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor. Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Courses in which students receive grades of C– or lower may not be applied toward the core requirements in the minor. Successful completion of the minor is indicated on the transcript and diploma.
M105G. Queer Literatures and Cultures after 1970. (Same as English M101C and Lesbian, Gay, Bisexual, Transgender, and Queer Studies M101C.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: English Composition 3; Examination of cultural production, specifically literature, produced by queers after Stonewall rebellion in New York in 1969, widely regarded as origins or beginning of modern LGBTQ movements in U.S. Films and writings by such authors as Andrew Hol leran, Leslie Feinberg, Achy Obejas, Essex Hemphill, Audre Lorde, and Alison Bechdel may be included. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M105D. Studies in Queer Literatures and Cultures. (Same as English M101D and Lesbian, Gay, Bisexual, Transgender, and Queer Studies M101D.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: English Composition 3; Variable specialized studies course in queer literatures and cultures. Topics focus on particular problem or issue in terms of its relationship to queer cultures and writings. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M106. Imaginary Women. (Same as Comparative Literature M106.) Lecture, three hours. Enforced requisites: English Composition 3. Focus of study on women writers that may include historical, regional, national, or thematic emphasis, with possible topics such as authorship, self-writing, sexuality, gender, and genre. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M107A. Studies in Women's Writing. (Same as English M107A.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: English Composition 3; Examination of literary and cultural production through lens of gender and sexuality. Depending on instructor, emphasis may be historical, regional, national, comparative, or thematic and include other intersectional vectors of identity and representation such as race and ethnicity. May be repeated for credit with topic or instructor change. P/NP or letter grading.

108S. Violence against Women. (4) Lecture, three hours. Enforced requisites: course 10. Factual information and theoretical analyses regarding various forms of violence against women; gender and gendered social spaces; experiences, and communities through critical examination of social structures and social science research. Letter grading.

M109. Women in Jazz. (4) Same as African American Studies M109, Ethnomusicology M109, and Global Jazz Studies M109.) Lecture, four hours; discussion, one hour. Sociocultural history of women in jazz and allied musical traditions from 1890s to present. Survey of women vocalists, instrumentalists, composers, arrangers, and producers and their impact on development of jazz. P/NP or letter grading.

M110C. Topics in Feminist Philosophy: Metaphysics and Epistemology. (Same as Philosophy M110C.) Lecture, three hours; discussion, one hour (when scheduled). Requisite for Gender Studies majors: course 10; for other students: one philosophy course. Examination in depth of different theoretical positions on gender and women as they have been applied to study of philosophy. Emphasis on theoretical contributions made by new scholarship on women in philosophy, and philosophical concepts and principles that arise in discussion of women's rights and liberation. Philosophical approach to feminist theologies. May be repeated for credit with consent of instructor. P/NP or letter grading.

M111. Women and Film. (6) Same as Film and Television M111.) Lecture, eight hours; discussion, one hour. Historical issues and critical approaches to women and cinema that may include authorship, stardom, female genres, and images of women in Hollywood cinema, alternative cinema, and independent cinema from silent era to present. Letter grading.

112. Special Topics in Women and Arts. (4) Lecture, three hours. Enforced requisites: course 10. Selected topics relating feminist theories to creation of art by women, with consideration of cultural contexts in which they work. Approach to be comparative, cross-cultural, thematic, and feminist. How women practice by women in relation to issues of power, representation, and access. May be repeated twice, except for credit toward Gender Studies major. P/NP or letter grading.

113. Sex Work. (4) Lecture, three hours. Enforced requisites: course 10. Analysis of variety of contemporary sex work both in U.S. and abroad from feminist perspective. Examination of how race, class, and gender alter experience and perception of erotic labor, and consideration of critically feminist responses by range of authors to sex work. Topics include brothels, phone sex, strip clubs, sex tourism, military prostitution, and international traffic in persons. Reading of texts by sex workers, as well as articles from current philosophical and policy debates about prostitution. P/NP or letter grading.

M114. Introduction to Lesbian, Gay, Bisexual, Transgender, and Queer Studies. (Same as Lesbian, Gay, Bisexual, Transgender, and Queer Studies M114.) Lecture, three hours; discussion, one hour. Introduction to history, politics, culture, and social study of lesbians, gay men, intersex identities, and queer people; examination of sexuality and gender as categories for investigation; interdisciplinary theories and research on minority sexualities and genders. P/NP or letter grading.

M115. Topics in Sex of Sexual and Gender Orientation. (4) Same as Lesbian, Gay, Bisexual, Transgender, and Queer Studies M115.) Lecture/discussion, three hours. Requisite: course M114. Studies in arts, humanities, social sciences, and/or life sciences on aspects of sexual orientation, gender identity, and lesbian, gay, and/or bisexual issues; variable topics may include cultural, historical, political, and social perspectives and research. May be repeated for credit. Letter grading.


117. Introduction to Queer Latina/Latino Studies. (4) Lecture, three hours. Examination of production of Latina/Latino identity and its relationship to and influence within contemporary literature, music, film, and performance art. Engagement with texts that posit queer analytic approach to study how Latinidad is informed by modes of desire and identification that fall out of dominant notions of Latino in popular culture. Critical engagement of limits of knowledge production around Latina/Latino identity to develop new analytics that abide by question of Latinidad rather than positing answer or solving its political consequences in contemporary U.S. culture. Study draws upon feminist and queer artists such as Ana Mendieta, Nao Bustamente, Asco, Tania Bruguera, Tropicana, Ana Mendieta, Arcadia, Felix-Gonzales Torres, Gladys Amador, and Gregg Araki. P/NP or letter grading.

M118. Queering American History. (4) Same as Lesbian, Gay, Bisexual, Transgender, and Queer Studies M118.) Lecture, four hours. Enforced requisites: one prior lesbian, gay, bisexual, transgender, and queer studies course. History of sexual and gender minorities in U.S. Topics include changing norms, romantic tristesse, politics, gay the AIDS, post-Stonewall culture, AIDS migration, queer theory, and politics. P/NP or letter grading.

119. Racial Violence and Law. (4) Lecture, three hours. Requisite: course 10. Through feminist, anti-colonial, and anti-racist perspectives, analysis of racial violence and appropriate anti-violence strategies. Offers theoretical approach for understanding racial violence. Consideration of what is racial violence and racial terror; how feminists should respond to racial violence; connection between historical moments of extraordinary racial violence and our everyday world; how we understand violence at specific sites, e.g., concentration camps, racial violence between and in different historical contexts; how individuals come to participate in, remain indifferent to, or approve of violence; role of hegemonic masculinity and femininity in these processes; and in different forms. Exploration of these broad questions through consideration of anti-indigenous/colonial violence, anti-Black violence, and anti-Mexican violence of underpinning anti-migrant and anti-refugee movements, torture, terror, and state violence. 120SL. Feminist Praxis: Community-Based Learning. (4) Seminar, three hours; fieldwork, four hours. Prerequisite: at least two core courses. Requisites: course 10 and one course from 102, 103, or 104. Service-learning course combining seminar with practical experience working on gender issues and connecting these experiences to methodological and theoretical themes explored in gender studies core courses. Community partners selected in advance by instructor in consultation with Center for Community Learning. Letter grading.

M121. Topics in Gender and Disabilities. (4) Same as Disability Studies M121.) Lecture, three and one half hours. Limited to juniors/seniors. Ways in which issues of disability are affected by gender, with particular emphasis on various policies and experiences of women with disabilities. Approach is intersectional, exploring how social categories of class, race, ethnicity, religion, age, sexuality, nationality, and citizenship affect and are affected by disability. Topics may include law (civil rights, nondiscrimination), representation (arts, literature), education, public policy, health. May be repeated for credit with topic and instructor change. P/NP or letter grading.

122. Masculinities. (4) Lecture, three hours. Enforced requisites: course 10. Masculinity as theorized by feminists and shaped by race, class, age, and nation. Topics include femininities, masculinity, gender, race, body, childhood and adolescent socialization, sport, male violence, homophobia, black masculinity, globalization and masculinity, and men's movements in 19th and beyond. Special emphasis on social sciences approaches and methodologies. P/NP or letter grading.

123. Gender, Race, and Class in Latin American Literature and Film, 1850 to 1950. (4) Seminar, three hours. Intensive course in discussion in English. Comparative survey of cultural expression in Latin America, with emphasis on works produced or set in late-19th and early-20th centuries. Historical and social circumstances of women in different Latin American cultural contexts, with particular concentration on how gender, sexuality, race, and class are absorbed and reflected in literature and film. Within this genealogy, examination of how cultural production sustains or interrogates categories used to construct social, political, and cultural hierarchies. Topics include questions of authority and authorship such as women’s participation in formation of national cultures, engagement with artistic movements, and strategies of self-figuration. P/NP or letter grading.

M124. Sex, Race, and Difference in Transnational Film. (8) Same as Film and Television M124.) Lecture, three hours; discussion, one hour. Introduction to feminist method in media studies, training of students in media literacy so they acquire necessary skills to critically interrogate film as medium of communication and to appreciate how films provide lens to formation of national cultural contexts; and how we understand violence at specific sites, e.g., concentration camps, racial violence, and different critical issues of our time. Development of understanding of transnationality to examine how circulations of capital, labor, and commodities transact, render problematic, and sometimes resist national borders. Examination of role of film in both exemplifying and representing these conditions of transnationality. How films enable understanding of historical and contemporary relationships between those categories as nation, race, class, sex, citizenship, and migration; colonialism and settler colonialism; Orientalism, geopolitics, and sexuality; cultural identity and diaspora; transnational conceptions of sexual desire and
embodiment; immigration and religious difference; and criminalization of racial difference. P/NP or letter grading.

125. Perspectives on Women’s Health. (4) Lecture/discussion, three hours. Requisite: course 10. Examination in depth of various ways women provide healthcare in both paid and unpaid capacities and of political, economic, and social factors affecting women as recipients of healthcare. P/NP or letter grading.

M126. Feminist and Queer Theory. (5) Same as English M126 and Lesbian, Gay, Bisexual, Transgender, and Queer Studies M126.) Lecture, four hours; discussion, one hour. Requisite: American Composition. Recommended: one course from 102, 103, 104, English 120, or 121. Investigation of key concepts and debates in study of gender, sexuality, and kinship, with focus on their interrelated significance for making of culture. Readings to be interdisciplinary, with possible emphasis on impact of changing ideas of gender and sexuality on specific historical cultures. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M127. Women in Russian Literature. (4) (Same as Russian M127.) Lecture, three hours. Designed for juniors/seniors. Lectures and readings in English. Introduction to alternative tradition of women’s writings in Russia and Soviet Union. Emphasis on images of women expressed in this tradition as compared with those found in works of contemporary male writers. P/NP or letter grading.


129. Women and Gender in Caribbean. (4) Seminar, three hours. Requisite: course 10. Exploration of ways in which gender discourses have been central to making of Caribbean history and to some most enduring experiments in European empire, capitalist development, and coercive labor. Emphasis on women who lived through slavery and indentured servitude and who continue to live under systems of globalization and neoliberal exploitation. How Caribbean women have historically empowered themselves and their communities, working in various ways to survive, radicalize, and transform the world. What were in particular ideas about gender and sexuality have shaped emergence of new nations and national cultures in Caribbean, and consideration of some dominant images of women in Caribbean popular culture. Exploration of complicated ways in which gender, race, class, sexuality, and national identity intersect in different Caribbean contexts. P/NP or letter grading.


131. Feminist Politics in Korea and Diaspora. (4) Lecture, three hours. Requisite: course 10. Examination of religion and social movements in Korea and Korean diaspora through interdisciplinary feminist and critical area studies approach. Use of postcolonial, anti-racist, and intersectional frameworks. Emphasis on Korean and Korean diaspora as site of inquiry and field of knowledge. Close examination of several contemporary political issues, focusing on salient political ideologies and oppositions, and mobilized by religious groups, and wide range of ideas, institutions, and practices that are animated by complex politics of gender, sexuality, and religion. Topics include Korean and transcendentalist cosmologies; Korean imperialism, antimilitarism and communism; and nabolism; pro–democracy movements and labor organizing; Catholic and Buddhist solidarity and sanctioning; geographies; heteropatriarchy and urban mega-churches; faith-based pacification and conscientious objection to military conscription. P/NP or letter grading.

CM132A. Chicana Feminism. (4) Same as Chicana/o and Central American Studies M132A, Leslie, Gay, Bisexual, Transgender, and Queer Studies M132A.) Lecture, four hours. Enforced requisite: course 10 or Chicana/o and Central American Studies 10A. Examination of theories and practices of women who identify as Chicana feminists and of writings of Chicanas who do not identify as feminist but whose practices attend to gender inequalities faced by Chicanas within both Chi- cana/Chicano community and dominant society. At- tention to Anglo- and Mexican-Chicano women. Concurrently scheduled with course CM232A, P/NP or letter grading.

M132B. Contemporary Issues among Chicanas. (4) (Same as Chicana/o and Central American Studies M132B.) Lecture, two and one half hours. Requisite: course 10. Overview of conditions facing Chicanas in U.S., including issues on family, immigration, reproduction, employment conditions, Comparative analy- sis with other Latinas. P/NP or letter grading.


M133A-M133B. History of Women in Europe. (4–4) (Same as History M133A-M133B.) Lecture, three hours; discussion, one hour (when scheduled). Requisite: for seniors/juniors. History of social, political, and cultural roles of women in Western Europe from early Middle Ages to present. P/NP or letter grading. M133A. 801: to 1300. M133B. 1301 to 1600. Letter grading.

M133C. History of Prostitution. (4) (Same as History M133C.) Lecture, three hours; discussion, one hour (when scheduled). Requisite: for seniors/juniors. History of prostitution from ancient times to present. Topics include tolerance in medieval Europe, impact of syphilis, birth of courtesan, regulation in 19th-cen- tury Europe, white slavery scare, and contemporary global sex trade. Readings include novels, primary sources, and testimony by sex workers. P/NP or letter grading.


M135C. Bilingual Writing Workshop. (4) (Same as Chicana/o and Central American Studies CM135 and Lesbian, Gay, Bisexual, Transgender, and Queer Studies CM135.) Seminar, four hours. Limited to juniors/seniors. Writing sample required; access to course writing center required. Focus on writing for Chicana/Latina women and Chicano/Latino men. Emphasis on classroom and electronic reading. P/NP or letter grading.

M136. Music and Gender. (4) (Same as Musicology M136.) Lecture, four hours; discussion, one hour. Analysis of gender ideologies in several musical cul- tures; representations of gender, body, and sexuality by both male and female musicians; contributions of women to Western musical traditions; and the role of feminism and gay/lesbian theory and criticism. Letter grading.

M137E. Work Behavior of Women and Men. (4) (Same as Psychology M137E.) Lecture, two and one half hours. Requisite: course 10 or Psychology 10. De- signed for seniors. Examination of work behavior of men and women. Topics include the impact of career choice, job findings, leadership, performance evaluation, discrimination and evaluation bias, job sat- isfaction, and independence of work and family life. P/NP or letter grading.

138. Gender and Popular Culture. (5) Lecture, three hours; screenings, two hours. Limited to juniors/se- niors. Conceptual tools and critical skills necessary to make critical interventions in gender and popular cul- ture in the U.S. context. Consideration of theories of popular culture and exploration of distinctive power and ideological force exerted by popular culture in public life. Examination of representa- tions of male and female bodies to understand vi- sual vocabulary of gender in popular culture, as well as relationship between visual stereotypes and re- flection in transformative potential of pop culture and exploration of capacity and limits of popular culture as agent of social change. Letter grading.

139. Women and Art in Contemporary U.S. (4) (Same as Art History M139.) Lecture, three hours; discussion, three hours. Requisite: course 10. Ex- ploration of some significant cultural issues of con- temporary American women’s art movement. Repre- sentation, resistance, and critical intervention in gender, race, and class as visual and performance arts as these reflect various perspec- tives of feminism. Letter grading.

M140C. Class and Gender in Care Work. (4) (Same as Asian American Studies M140C, Chicana/o and Cen- tral American Studies M140C.) Lecture, three hours; discussion, one hour. Requisite: for juniors. Examination of how gender, race, class, and citizenship shape status of domestic labor in U.S. Examination of domestic worker experiences through films, fiction, and traditional scholarship. Examination of why domestic work is in high demand, who employs domestic workers and why immigrants of color make up large percentage of this workforce. Examina- tion of how domestic workers navigate pay and working conditions, and how they build community and family networks in shadows of their privileged em- ployers. P/NP or letter grading.

141. Gender, Culture, and Capitalism. (4) Lecture, three hours. Dynamic investigation of culture as terrain of production—and reproduction—of and resistance to gendered, racialized, and capitalist relations through active analysis of advertisements, television serials, Disney fairy tales, and performative forms like fortune-telling. Focus on relationships between gender, culture, and capitalism through theoretical, feminist and queer cultural studies to explore gen- dered processes of production and consumption of culture under capitalism. P/NP or letter grading.

142. Race, Gender, and Punishment. (4) Seminar, three hours. Enforced requisite: course 10. Examination of what crisis scholars have called prison industrial complex. U.S. has largest prison population in world. How and why is this? Who is imprisoned? What were historical conditions and ideologies gave rise to this massive explosion in prisoner population? Does prison function as regime? How have politicians used imprisonment as response to economic transforma- tions and social disorders. How does a society analogous to or distinct from regimes of racialized punish- ment in prior historical moments? How do prisons change environments? How have people mobilized to reduce U.S. prison population? Why do some activists argue for reform and others for abolition? Examination of key topics, including policing and racial profiling, immigrant detention, privatization, spatial transforma- tion, gender violence, punishment, and political imprisonment. P/NP or letter grading.

CM143XP. Healing, Ritual, and Transformation. (4) (Formerly numbered CM143.) (Same as World Arts and Cultures CM143X.) Lecture, one hour. Requisite: De- signed for juniors/seniors. Examination of how various cultures think of health and wellness, not only individu- ally but collectively. Exploration of structural inequali- ties within healthcare and medical sciences. Students are required to contribute weekly to service learning.
component, working with individuals and organizations in fields of health and wellness including healers, non-profits, and organizations working for social justice. Offered concurrently with CM243XP. Letter grading.

M144. Women's Movement in Latin America. (4) (Same as Chicana/o and Central American Studies M144 and Labor Studies M144.) Lecture, four hours. Course requirements: interaction with individuals and organizations in Latin America and Caribbean to examine diverse social movements and locations from which women have launched political and gender struggles. Discussion of forms of resistance required. Examination of women's consciousness that have emerged out of indigenous rights movements, environmental struggles, labor movements, Christian-based communities, peasant and rural organizing, and new social movements. Offered in consultation with women, gender, sexuality, feminism, and human rights. Through comparative study of women's movements in diversity of political systems as well as national and transnational arenas, students gain understanding of historical contexts and political conditions that give rise to women's resistance, as well as major debates in field of study. P/NP or letter grading.

145. African American Women's History. (4) Seminar, three hours; discussion, course 10. Historical examination of black women's experiences in the U.S. from the antebellum era to present. By situating their experiences within major historical transitions in American history, exploration of key themes, including gender, race, ethnicity, class, culture, historical contexts. P/NP or letter grading.

M146. Feminist Geography. (4) (Same as Geography M144.) Lecture, three hours; discussion, one hour. Cultural engagement of gender as concept of geographic inquiry. Gender as spatial process, analysis of feminist geographic theory and methods, landscapes of gender, challenges of representing gender. Spaces of femininity, masculinity, and sexuality. P/NP or letter grading.

M147A. Psychology of Lesbian Experience. (4) (Same as Lesbian, Gay, Bisexual, Transgender, and Queer Studies M147A and Psychology M147A.) Lecture, three hours; discussion, one hour. Examination of gender as constructed through concrete experiences and discourses of gender. Challenging of gender, representing gender. Spaces of femininity, masculinity, and sexuality. P/NP or letter grading.

M147B. History of Women in Colonial British America and Early U.S., 1600 to 1860. (4) (Same as History M147C.) Lecture, three hours; discussion, one hour (when scheduled). Comparative study of women’s movements and feminism in Latin America and Caribbean to examine diverse social movements and locations from which women have launched political and gender struggles. Discussion of forms of resistance required. Examination of women’s consciousness that have emerged out of indigenous rights movements, environmental struggles, labor movements, Christian-based communities, peasant and rural organizing, and new social movements. Offered in consultation with women, gender, sexuality, feminism, and human rights. Through comparative study of women’s movements in diversity of political systems as well as national and transnational arenas, students gain understanding of historical contexts and political conditions that give rise to women’s resistance, as well as major debates in field of study. P/NP or letter grading.

M147C. Transnational Women's Organizing in Americas. (4) (Same as Chicana/o and Central American Studies M147C.) Seminar, four hours. Feminist theories of transnational organizing. Examination of gender and race as central to processes of globaliza- tion and essential to economic and political struggles encompassing a wide range of social movements. Examination of how processes of race and gender influence global economic policies and impact local actors and their communities. In time when people, capital, cultures, and technologies cross national borders with growing frequency, discussion of process of acceler- ated globalization has been linked to feminization of labor and migration, environmental degradation, ques- tions of diaspora, sexuality, and cultural displacement, as well as growing feminization of poverty. Problems and issues created by globalization and cultural, social, and political responses envisioned by transnational organizing. P/NP or letter grading.

M147D. History of Women in U.S., 1860 to 1980. (4) (Same as Women's History M147D.) Seminar, four hours; activity, one hour. Limited to majors and Labor Studies minors. Examination of the ways in which media culture induces people to per- ceive various dominant and dominated and/or colo- nized groups of people. Ways in which women, gay, lesbian, bisexual, transgendered, racial, and ethnic marginalized peoples, class relations, and other subal- tern or subordinate groups are presented and often misrepresenting them. Identification and employ- ment of practical applications of communications and feminist theories for understanding ideological nature of stereotyping and politics of representation through use of historical sources, lectures, class discus- sions, and readings. Introduction to theory and practice of cultural studies. Letter grading.

152. Gender, Disability, and Education. (4) Lecture, three hours. Drawing on critical theory, study engages intersec- tions of disability as it is theorized, con- structed, and lived as post/neocolonial condition. Study bridges disability scholarship between global and local. Topics include interdisciplinary fields of feminist disability studies—which assumes disability is always inextricably linked to other social markers, such as gender, race, sexuality, and class—gender and disability in multicultural society, changes in psychological theo- ries of disability, and disability studies. Examine ways in which media culture induces people to per- ceive various dominant and dominated and/or colo- nized groups of people. Ways in which women, gay, lesbian, bisexual, transgendered, racial, and ethnic marginalized peoples, class relations, and other subal- tern or subordinate groups are presented and often misrepresenting them. Identification and employ- ment of practical applications of communications and feminist theories for understanding ideological nature of stereotyping and politics of representation through use of historical sources, lectures, class discus- sions, and readings. Introduction to theory and practice of cultural studies. Letter grading.

153. Gender and Comics. (4) Seminar, three hours. Introduction to comics as a political and cultural form. Discussion of comics as a form of graphic storytelling and its role in social and political contexts. Course examines the nature of comics as a medium of expression and its impact on society. P/NP or letter grading.

154R. Women and Social Movements. (4) (Same as Anthropology M145R.) Lecture/discussion, three hours. Recommended preparation: prior gender studies or anthropology courses. Comparative studies of social movements (e.g., nationalist, socialist, liberal/ repressive). Women's movements in Latin America, including Cuba, Algeria, Guinea-Bissau, Mozambique, Nicaragua, and Iran. Analysis of women's participation in social transformations and the centrality of gender interests. P/NP or letter grading.

154T. Women's Voices: Their Critique of Anthropology of Japan. (4) (Same as Anthropology M145T.) Lecture, three hours. Preparation: introductory socio-cultural anthropology course. The anthropology of Japan has long viewed Japan as a homogenous whole. Restatement of diversity and contradiction in it by listening to voices of Japanese women in various historical contexts. P/NP or letter grading.

156A. History of Women in the U.S.: The Rebellious Woman. (4) Limited to juniors/seniors. Introduction to major and minor figures and movements for social change in the U.S., including themes from politics, sports, civil rebellion, and recovery. Examines dramatic challenges to gender roles over course of the 20th century through actions of rebellious women who led way for many women in the 21st century. Offered in summer only. P/NP or letter grading.

157C. Chicana Historiography. (4) (Same as Chica- na/o and Central American Studies M158 and His- tory M151D.) Lecture, four hours. Examination of Chi- cana/o and Central American history. Focus of course is on the dynamic and transformative nature of writing of history has placed Chicanas into particular narratives. Using Chicana feminist approaches to study of history, revisiting of specific historical periods and events such as Spanish Conquest, Mexican Period, American Conquest, Mexican Revolution, and Chicano Movement to excavate untold stories about women’s participation in and contribution to making of Chicanas and Chicanos history.

157X. Women, Gender, and Sexuality in Italian Cul- ture. (4) (Same as Italian M157X.) Lecture, three hours; discussion, one hour. Analysis of gender roles, images of femininity and masculinity, patriarchy, myths of Ma- donna and Latin lover, condition of women in Italian society through history, politics, literature, film, and other media. Italian majors required to read texts in Italian. P/NP or letter grading.

160. Sporting Bodies. (4) Lecture, three hours. Re- quirement: major or letter grading. From Don Imus’ “nappy-headed hos” comment to controversies about transgender athletes or athletes with prosthetics; from covers of magazines to game in Dodger’s Stadium paying footballers not singing national anthem, college men’s teams rating women’s teams in terms of sexual positions, unionization of athletes— discourses of sport draw heavily upon extant ideolo- gies of race, gender, sexuality, and class. Introduction to critical analyses of social categories and how they are represented and reproduced in various sports and media. Critical examination of historical social values and how they are reproduced through sport. P/NP or letter grading.

M161. Sports, Normativity, and Body. (4) (Same as Disability Studies M161.) Lecture, four hours. Since cour- ses like “Intersections of Sport and Disability” in 1994, athletes with disabilities have had, and been denied, formal opportunities to compete with able-bodied ath- letes. Overview of some major topics of discussion concern intersections of disability, addressing variety of perspectives and themes on disability and sport, such as passing, sports integration, competition versus charity, and mainstreaming. Sources include trade, television, and biographical writings that address sports, body and disability generally, and Special Olympics specifically. P/NP or letter grading.

M162. Sociology of Gender. (5) (Same as Sociology M162.) Lecture, three hours; discussion, one hour. En- forced requisite: course 10 or Sociology 10. Examina- tion of processes by which gender is socially con- structed. Topics include distinction between biological
sex and sociological gender, causes and consequences of gender inequality, and recent changes in gender relations in modern industrial societies. P/NP or letter grading.

M163. Gender and Work. (4) (Same as Sociology M163.) Lecture, three hours. Requisite: course 10 or Sociology 1. Exploration of relationship of gender to work, concentrating on the U.S. experience but also including materials. Particular emphasis on analysis of causes and consequences of job segregation by gender and of wage inequality. P/NP or letter grading.

M164. Politics of Reproduction and Everyday Life. (4) (Same as Sociology M164.) Lecture, three hours. Discussion, one hour. Limited to juniors/seniors. Social and human reproduction is global policy issue. Government efforts to influence reproduction are important feature of modern state: political intervention into private life, intimacy, and sexuality. Exploration of politics of reproduction—intersection between politics and life cycle or between public sphere and private lives—and coverage of broad range of issues addressing prevention and promotion of reproduction from historical-comparative approach. Reading, discussion, and development of culminating project. P/NP or letter grading.

M164A. Women, Violence, Globalization: India, Philippines, Singapore, Vietnam. (4) (Same as Asian American Studies M164.) Lecture, four hours. Study of various forms of violence on women—both in and of themselves but in light of larger systems of oppression, with focus on Filipino, Vietnamese, Singaporean, and South Asian cultures. Letter grading.

M165. Psychology of Gender. (4) (Same as Psychology M165.) Lecture, three hours. Consideration of psychological literature relevant to understanding contemporary sex differences. Topics include sex-role development and role conflict, physiological and personality differences between men and women, and sex differences in intelligence abilities and achievement, and impact of gender on social interaction. P/NP or letter grading.

M167. Contested Sexualities. (4) (Same as Lesbian, Gay, Bisexual, Transgender and Queer Studies M167.) Lecture, three hours; discussion, one hour. Sociological perspectives on formation, control, and resistance of lesbian, gay, bisexual, and transgendered people. Variable topics include identity and community; age, class, gender, and racial diversity; and analysis of contemporary issues affecting contested sexualities. Letter grading.

M168. Feminist Economics in Globalizing World. (4) Lecture, four hours. Preparation: satisfaction of Letters and Science Writing II requirement. Requisite: course 10. Designed for juniors/seniors. Overview of field of feminist economics, with emphasis on development economics and its globalization. Overview of gender inequalities such as gender division of labor in paid and unpaid work, patterns of employment and unemployment, and wage gaps between men and women in different world economy regions; feminist critiques of economics and of theoretical debates within gender and development field on topics such as structural adjustment, feminization of labor force, and poverty. Emphasis on top-down theorists; emphasis by governments, international policy-making institutions, and civil society organizations to make economic policies and structures gender-equitable. P/NP or letter grading.

M169. Common Thread: Garment Workers Past, Present, Future. (4) (Same as Chicana/o and Central American Studies M128C and Labor Studies M108.) Lecture, two hours. This hands-on class explores global economics, labor history, and ethnic studies to offer in-depth exploration of labor and experiences of garment industry workers from early 19th century to present. In contrast to traditional narratives, study locates garment workers—majority of whom are immigrant women—at vanguard of U.S. labor movement, showing how they pioneered new forms of worker education and other progressive programs by coming together. Exploration of garment work relationship to American culture, tracing how sweatshop became symbol of worker exploitation, how popular culture and fashion trends impacted lived realities of workers in those shops, and how racial and gendered expectations shaped public perceptions of garment workers. By doing so, study reveals garment work to be central thread that ties together histories of global trade, industrialization, gender and sexuality, immigration, radicalism, unionization, and American imperialism. P/NP or letter grading.


M170C. History of Women in China, AD 1000 to Present. (4) (Same as History M170C.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Topics include women and family, women in Confucian ideology, women in literati culture, feminist movement, and women and communist revolution. P/NP or letter grading.

171A. Women, Gender, and Law: Jurisprudence of Sexual Equality. (4) One course. Enforced requisite: course 10. Recommended: course 102 or 103 or 104. Exploration of models of equality described and/or advocated by legal theorists primarily in U.S.—equality of opportunity, equality of outcome, equality of respect, etc.—using specific problems of women (e.g., sexual harassment, pregnancy leave policy, access to safe and effective reproductive control technology, problems of gender identity). Specific focus may vary by instructor (e.g., consideration of sexual equality theories to issues of gender equality and legal status outside U.S. or from perspectives of international human rights). May be repeated for credit with topic or instructor change. P/NP or letter grading.

M172. Afro-American Woman in U.S. (4) (Same as African American Studies M172 and Psychology M172.) Lecture, two and one half hours. Designed for juniors/seniors. Impact of social, psychological, political, and economic forces which impact on interpersonal relationships of Afro-American women as members of large society and as members of their biological and ethnic group. P/NP or letter grading.

M173B. Women in 20th-Century Japan. (4) (Same as History M173B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Japanese women in Japanese and world history through state documents, autobiographical voices, contemporary television, and other varying historical sources. Consideration of political and social changes (1900 to 1930), women, war, and empire (1930 to 1945), and women in consumer society (1960s to 1990s). P/NP or letter grading.

M174. Sociology of Family. (4) (Same as Sociology M174.) Lecture, three hours; discussion, one hour. Theory and research dealing with modern family, its structure, and functions, including historical changes, variant family patterns, family as institution, and influence of contemporary society on family. P/NP or letter grading.

M175. Women and Cities. (4) (Same as Urban Planning M175.) Lecture, three hours. Limited to juniors/seniors. Examination of relationships between women and cities: (1) how cities have affected women's opportunities for economic and social equality, (2) women's contributions to development of U.S. cities, and (3) contemporary strategies and efforts to create urban environments that reflect women's needs and interests. P/NP or letter grading.

CM178. Critical Media Literacy and Politics of Gender: Theory and Production. (4) (Same as Education CM178.) Seminar, three hours. Corequisite: course CM178L. Use of range of pedagogical approaches to theory and practice of critical media literacy that necessarily involves understanding of new technologies and media forms. Engagement in hands-on production and production of media to inform student analysis of media and critical media literacy projects. Concurrently scheduled with course CM278. Letter grading.

CM178L. Critical Media Literacy and Politics of Gender: Laboratory. (2) (Same as Education CM178L.) Laboratory, two hours. Corequisite: course CM178. Hands-on production experience as integral component of course CM178. Concurrently scheduled with course CM278L. Letter grading.

M180B. Historical Perspectives on Gender and Science. (4) (Same as History M180B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Historical cases illustrating how gender enters practices and concepts of science. Topics include gendered conceptions of nature, persons of man of science, role of women in scientific revolution, scientific investigations of women and feminine. P/NP or letter grading.

185. Special Topics in Gender Studies. (4) Lecture, three hours. Preparation: one prior gender studies course. Designed for juniors/seniors. Specialized or advanced study in one area within gender studies. May be repeated for credit with topic and/or instructor change. P/NP or letter grading.

M185A. Special Topics in American Indian and Gender Studies. (4) (Same as American Indian Studies M187A.) Lecture, three hours. Variable topics in American Indian and gender studies. May be repeated for credit with topic and/or instructor change. P/NP or letter grading.

M186A. Women and Gender, Prehistory to 1792. (4) (Same as History M186A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Exploration of evolution of gender, and sexuality from prehistory to 1792. First half deals with period before written history and asks when did gender appear? How and why did patriarchy develop? Topics include evolution of women’s bodies, appearance of gender, women’s contribution to Neolithic revolution, significance of Goddess artifacts, creation myths, and women and sexuality in different religions. Consideration of effects of European conquest on Mesoamerican women, women’s power in monarchies, gender dimensions of Atlantic slavery, and first manifestations of feminist consciousness in second half. Objectives include creation of women’s bodies, appearance of women in those shops, and how racial and gendered expectations shaped public perceptions of garment workers. By doing so, study reveals garment work to be central thread that ties together histories of global trade, industrialization, gender and sexuality, immigration, radicalism, unionization, and American imperialism. P/NP or letter grading.

M188B. Global Feminism, 1850 to Present. (4) (Same as History M186B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Introduction to movements for women's rights (educational, political, economic, sexual, and reproductive) around world and over one and one half centuries. P/NP or letter grading.

187. Senior Research Seminar: Gender Studies. (4) Seminar, three hours. Requisite: courses 10, 102, 103, 104. Designed for advanced junior/senior Gender Studies majors or minors. In-depth study of major gender research. Research in groups. Research paper or from perspectives of international human rights). May be repeated for credit with topic or instructor change. P/NP or letter grading.


189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

M191D. Topics in Queer Literatures and Cultures. (5) (Same as English M191D and Lesbian, Gay, Bisexual, Transgender, and Queer Studies M191D.) Seminar, three or four hours. Enforced requisite: English Composition 3. Consult Schedule of Classes for author, period, genre, or subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M191E. Topics in Gender and Sexuality. (5) (Same as Disability Studies M191E.) Seminar, three or four hours. Enforced requisite: English Composition 3. Consult Schedule of Classes for author, period, genre, or subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

189A. Advanced Honors Seminars. (4-18) Seminar, four hours. Limited to junior/senior gender studies honors program students. Three-term sequence to research and write honors thesis under direct supervision of faculty sponsor and in consultation with faculty co-sponsor. Individual contract required. 189A. Required: course 187. Letter grading. 189B. Enforced requisite: course 189A. In Progress grading (credit to be given only on completion of courses 189A, 189B, and 189C). Required. Letter grading.

199. Directed Research in Gender Studies. (2 or 4) Tutorial, to be arranged. Preparation: at least two upper-division gender studies courses, minimum 3.0 grade-point average. Limited to 103 or 104. Limited to junior/senior Gender Studies majors and minors. Supervised individual research or investigation under guidance of faculty mentor on specific subject matter required. May be repeated for credit. Individual contract required. Letter grading.

Graduate Courses

201. Introduction to Interdisciplinary Methods in Gender Studies. (4) Seminar, three hours. Examination of some of most influential feminists and/or feminists of color, feminist scholars from other countries, and recent so-called antifeminist discussions of future feminist sociology. Letter grading.

210. Topics in Women and Public Policy. (4) Seminar, three hours. Departmental topics course that offers in-depth aspects of field. Limited of investigation set by individual instructor. S/U or letter grading.

210. Topics in Women and Public Policy. (4) Lecture, four hours. Designed for graduate gender studies students. Introduction to background, decision-making processes, and current debates over public policy directly affecting women. May be repeated for credit with instructor change. Letter grading.

215. Topics in Study of Sexuality and Gender. (4) Seminar, three to four hours. Designed for graduate students. Multidisciplinary studies on aspects of sexual orientation, gender identity, queer and transgender theory, interdisciplinary research on minority sexualities, and social construction/deconstruction of gender. May be repeated for credit with topic or instructor change. Letter grading.

220. Cultural Studies in Gender, Race, and Sexuality. (4) Seminar, three hours. Designed for graduate students. In-depth study of representations of gender and sexuality in literature, film, performance, and culture, with special attention to race. Topics include flow of artistic cultural production across national borders, theorizing feminisme as diasporic or multicultural formation. Letter grading.

CM232A. Chicana Feminism. (4) (Same as Chicana/o and Central American Studies CM232A.) Lecture, four hours. Enforced requisite: course 10 or Chicana/o and Central American Studies CM232A. Examination of theories and practices of women who identify as Chicana feminist. Analysis of writings of Chicanas who do not identify as feminist but whose practices attend to gender inequities faced by Chicanas both within Chicana/o/Chicano community and dominant society. At- attention to Anglo-European and Third World women. Concurrently scheduled with course CM132A. S/U or letter grading.

MC233. Methodology of Gender and Sexuality. (4) (Same as Sociology M233.) Seminar, three hours. Designed for graduate students. Examination of current American feminist theory relevant to sociologists. Exploration of critiques of second wave feminism by working class feminism and/or feminist scholars from other countries, and recent so-called antifeminist feminists. Discussion of directions for future feminist sociology. Letter grading.

CM243XP. Healing, Ritual, and Transformation. (4) (Formerly numbered CM243J.) (Same as World Arts and Cultures CM243XP) Lecture, four hours. Designed for graduate students. Examination of how various cultures think of health and wellness, not only in- dividually but collectively. Exploration of structural in- equalities within health care and medical sciences. Students are required to contribute weekly to service learning component, working with individuals and or- ganizations in fields of health and wellness including healers, non-profits, and organizations working for so- cial justice. May be concurrently scheduled with CM114XP Letter grading.

M252. Selected Topics in Sociology of Gender. (4) (Same as Sociology M252.) Lecture, two hours; discussion, two hours. Designed for graduate students. Seminar on selected topics in sociology of gender. May be repeated for credit. Letter grading.

M253A. Seminar: Current Problems in Comparative Education. (4) (Same as Education M253A.) Seminar, two hours. Designed for graduate students. Seminar on selected topics in sociology of gender. May be repeated for credit. Letter grading.
M259A-M259B. History of Women. (4–4) Seminar, three hours. How does gender manifest itself in lives of different groups of women in U.S. and abroad? Are universal analytical categories or unified feminist movements possible or is gender too different cross-culturally? S/U or letter grading.

M259A-M259B. History of Women. (4–4) Seminar, three hours. What is universal gender representation to gendered politics via musical (de)codification of messages of resistance, and standing of gender in study of music as culture. Topics include gender, three hours. Designed to foster in-depth understanding of gender in study of music as culture. Topics range from gender and sexuality, to the (de)codification of messages of resistance, and gender representation to gendered politics via musical production. S/U or letter grading.

M261. Gender and Music in Cross-Cultural Perspective. (4) Seminar, three hours. Current theoretical developments in understanding gender systems cross-culturally, with emphasis on relationship between systems of gender, economy, ideational systems, and social inequality. Selection of ethnographic cases from recent literature. S/U or letter grading.

M266. Feminist Theory and Social Sciences Research. (4) Seminar, four hours. Examination of how diverse feminist social theories of last quarter century have both challenged and strengthened conventional social sciences theories and their methodologies. Introduction especially to feminist standpoint theory, distinctive critical theoretical methodology now widely used in social sciences. Letter grading.


CM278. Critical Media Literacy and Politics of Gender: Theory and Production. (4) Seminar, four hours. Corequisite: course CM278L. Use of range of pedagogical approaches to theory and practice of critical media literacy that especially involves understanding of new technologies and media forms. Study of both theory and production techniques to inform student analysis of media and critical media literacy projects. Concurrently scheduled with course CM278L. Letter grading.

CM278L. Critical Media Literacy and Politics of Gender: Laboratory. (2) Seminar, four hours. Corequisite: course CM278. Hands-on production experience as integral component of course CM278. Concurrently scheduled with course CM278L. Letter grading.

285. Special Topics in Women's Studies. (4) Lecture/discussion, four hours. Designed for graduate students. Special topics or special problems. In-depth study of aspects of feminist theory or research methods or gender analysis within disciplinary studies in social sciences, humanities, health sciences, arts, or professional programs. May be repeated for credit with topic or instructor change. Letter grading.

296. Doctoral Roundtable. (2) Research group meeting, two hours. Preparation: satisfactory completion of PhD program core courses. Corequisites: at least two courses from 201, 202, 203, 210. Limited to program PhD students. Interactive seminar with focus on disciplinary and interdisciplinary issues, feminist scholarship, research presentation, and professional development. May be repeated for credit. S/U grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Prerequisite or corequisite: course 495. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

495. Feminist Pedagogy. (2) Seminar, two hours. Preparation: appointment as teaching assistant in department. Introduction to feminist methods of teaching, with emphasis on reciprocity and dialogue and de-emphasis on hierarchy. Required of students while serving as teaching assistants (first time only) undergraduate gender studies courses. May be repeated for credit. S/U grading.

596. Directed Individual Study or Research. (2 to 12) Directed individual research and study in area related to women's studies/gender studies, arranged individually by student with instructor. May be repeated for credit. S/U or letter grading.

597. Preparation for MA Comprehensive Examination or PhD Qualifying Examinations. (2 to 12) Tutorial, eight hours. Limited to graduate gender studies students. Reading and preparation for written MA comprehensive examination or PhD qualifying field examinations. May be repeated for a maximum of 12 units. S/U grading.

598. Research for MA Thesis. (2 to 12) Tutorial, to be arranged. Requisites: courses 201, 202, 203. Directed individual research and study in area related to women's studies/gender studies, arranged individually by student with instructor. May be repeated for credit. S/U grading.


GEOGRAPHY

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Geography
310-825-1071
Gregory S. Okin, PhD, Chair

Faculty Roster

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John A. Agnew, PhD
Stephen A. Bell, PhD
Kyle C. Cavanaugh, PhD
Jared M. Diamond, PhD
C. Cindy Fan, PhD
Thomas W. Gillespie, PhD
Susanna B. Hecht, PhD
Dennis P. Lettenmaier, PhD
Glen M. MacDonald, PhD (Professor of California and the American West)
Adam D. Moore, PhD
Gregory S. Okin, PhD
Marilyn N. Raphael, PhD
Ananya Roy, PhD (Meyer and Renee Luskin Professor of Inequality and Democracy)
Yongwei Sheng, PhD
Michael E. Shin, PhD
Michael C. Storper, PhD
A. Park Williams, PhD
Yongkang Xue, PhD

Professors Emeriti
Charles F. Bennett, Jr., PhD
Judith A. Carney, PhD
William A.V. Clark, PhD
Michael R. Curry, PhD
J. Nicholas Entrikin, PhD
Helga M. Leitner, PhD
David L. Rigby, PhD
Melissa Savage, PhD
Allen J. Scott, PhD
Eric S. Sheppard, PhD (Alexander von Humboldt Endowed Professor Emeritus of Geography)
Laurence C. Smith, PhD
Werner H. Terjung, PhD
Stanley W. Trimble, PhD
Hartmut S. Walter, PhD

Associate Professors
Lieba B. Faier, PhD
Jamie M. Goodwin-White, PhD
Juan C. Herrera, PhD
Kelly A. Kay, PhD
V. Kelly Turner, PhD

Assistant Professor
Shaina S. Potts, PhD

Overview

Geography is the study of the natural world and how humans have changed it. It examines the physical Earth and life on it, looking at the world’s diverse cultures, economies, and the environmental problems they produce.

Geography addresses many issues about the contemporary world. Some are local, such as documenting the development of ethnic neighborhoods within Los Angeles. Others are regional, such as determining the best locations for nature reserves in California. Many are global, such as the study of greenhouse gases and how they affect climates, culture and resource issues in developing countries, and the impact of information technologies on people in different places.

The work of geographers often takes them out of the classroom into the field to collect information on topics that range from the settlement of new immigrants to the distribution of endangered species, the erosion of shorelines, and the location of high-tech businesses. On other occasions, geographers work in laboratories, using techniques such as computer analysis of satellite photographs to look for changes in river courses and computer modeling of shifts in global vegetation patterns and the distribution of human populations. Research is also conducted in libraries and archives, probing documentary sources on human interaction with the natural world and how that world is imagined.

Career Prospects

Department of Geography graduates have a wide variety of career opportunities because of their combination of geographical/environmental perspectives and technical skills. UCLA geography students have gone on to become university scholars, school teachers, members of governmental and nongovernmental planning, development, and conservation agencies, business executives, lawyers, and specialists in geographical information analysis for government and private business. Because of its so-

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phisticated focus on the relationship of the global to the local, geography is particularly useful for those who wish to pursue careers with an international focus.

Undergraduate Majors

Geography BA

The Geography major allows students to combine a broad background in the field with more specific interests and career goals. Students can select classes in several areas of geography such as urban, economic, cultural, environmental, physical, or biogeography. They should consult with the undergraduate adviser to plan a program suitable to their personal objectives.

Learning Outcomes

The Geography major has the following learning outcomes:

- Comprehensive knowledge of the main strands of physical and human geography, including familiarity with major theoretical perspectives
- Command of various geographical methods and techniques such as remote sensing, cartography, and field methods
- Skills in collecting and analyzing geographical data
- Proficiency in written arguments drawing on appropriate sources and methods in the geographical literature

Entry to the Major

Admission

To declare the major, students must have completed two geography courses with a grade-point average of 2.0 or better.

Transfer Students

Transfer applicants to the Geography major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one physical geography or biogeography course, one cultural geography or economic geography course, and one statistics course.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major

Required: Three courses (15 units) as follows: Geography 1 or 2, 3 or 4 or 6, and Statistics 12.

The Major

Required: Eleven upper-division geography courses (44 units minimum).

Honors Program

The departmental honors program is designed for Geography majors who are interested in completing a research project that culminates in an honors thesis. To qualify for graduation with departmental honors, students must have a cumulative grade-point average (GPA) of 3.5 or better in all upper-division geography courses and a 3.0 overall GPA. They must enroll in Geography 198A and 198B in two consecutive terms and earn grades of A– or better. They may elect to work with one or two faculty sponsors. Students are awarded highest honors, honors, or no honors based on an evaluation of the thesis by the faculty sponsor(s), and meeting GPA requirements. Contact the department advising office for more information.

Policies

Preparation for the Major

Each course must be taken for a letter grade.

The Major

Each course must be taken for a letter grade.

All geography upper-division courses numbered 100 and higher may be applied toward the major, with a few exceptions. Contact the advising office for more information.

Geography/Environmental Studies BA

The major in Geography/Environmental Studies develops and deepens students’ understanding of environmental issues; it explores problem-solving approaches from an interactive people/nature viewpoint and involves analysis of social, physical, and biotic environmental systems. The major’s uniqueness lies in its emphasis on its geographical perspective of human impacts on natural systems, as well as implications of global change on local and regional human systems.

Learning Outcomes

The Geography/Environmental Studies major has the following learning outcomes:

- Comprehensive knowledge of the main strands of physical and human geography, including familiarity with major theoretical perspectives
- Command of various geographical methods and techniques such as remote sensing, cartography, and field methods
- Familiarity with a range of environmental problems at different geographical scales, their analysis, modeling, and various policy responses to them
- Skills in collecting and analyzing geographical data
- Proficiency in written arguments drawing on appropriate sources and methods in the geographical literature

Entry to the Major

Admission

To declare the major, students must have completed two upper-division geography courses and a 3.0 overall GPA. They must enroll in Geography 174A, 175A, 175B, or 176A.

The Major


Honors Program

The departmental honors program is designed for Geography/Environmental Studies majors who are interested in completing a research project that culminates in an honors thesis. To qualify for graduation with departmental honors, students must have a cumulative grade-point average (GPA) of 3.5 or better in all upper-division geography courses and a 3.0 overall GPA. They must enroll in Geography 198A and 198B in two consecutive terms and earn grades of A– or better. They may elect to work with one or two faculty sponsors. Students are awarded highest honors, honors, or no honors based on an evaluation of the thesis by the faculty sponsor(s), and meeting GPA requirements. Contact the department advising office for more information.

Policies

Preparation for the Major

Each course must be taken for a letter grade.

The Major

Each course must be taken for a letter grade.

Geography/Environmental Studies majors are advised to complete the required courses in the...
intended for students interested in environmental studies and natural systems core.

**Undergraduate Minors**

**Geography Minor**

The Geography minor is designed for students who wish to deepen and/or broaden their major program of study with a distinctive yet flexible program of courses encompassing the relationship between environment and society. The minor allows students to develop a coherent strategy for understanding and explaining the manner in which people and the Earth interact. Students have the opportunity to explore the origins, development, morphology, and processes of landscapes inherited from nature, as well as those institutions and cultural, economic, political, and social patterns associated with the human development, occupancy, organization, perception, and use of these landscapes.

**Admission**

To enter the minor, students must have completed at least one geography course at UCLA with a grade of C or better, have an overall grade-point average of 2.0 or better, and file a petition in the Geography Department Advising Office, 1255 Bunche Hall.

**The Minor**

**Required Lower-Division Courses (10 units):** Two courses from Geography 1, 2, 3, 4, 6.

**Required Upper-Division Courses (20 units):** Any five upper-division geography courses, with a few exceptions. Contact the advising office for more information.

**Policies**

It is recommended that students take the lower-division courses before attempting upper-division courses.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor, and at least three of the five upper-division courses must be taken in residence at UCLA. Transfer credit for any of the above is subject to departmental approval.

Each minor course must be taken for a letter grade. Successful completion of the minor is indicated on the transcript and diploma.

**Geospatial Information Systems and Technologies Minor**

The Geospatial Information Systems and Technologies minor is designed to provide students with a strong background in the use, application, and development of geospatial/environmental research techniques and methods.

**Admission**

To enter the minor, students must have completed Geography 7 with a grade of B or better, have an overall grade-point average of 2.0 or better, and file a petition in the Geography Department Advising Office, 1255 Bunche Hall. For majors in Geography or Geography/Environmental Studies, only two upper-division courses may overlap between the major and this minor.

**The Minor**

**Required Lower-Division Courses (10 units):** Geography 7, Statistics 12.

**Required Upper-Division Courses (24 units minimum):** Geography 180, 181A, 181B, 182A, and any two courses selected from 181C, 182B, 184, M186, and 199 (4 units with approval of the faculty adviser).

**Policies**

Each upper-division course must be completed with a grade of C or better.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor, and at least three of the five upper-division courses must be taken in residence at UCLA. With the exception of Statistics 12, transfer credit is not accepted toward this minor except on rare occasions.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

**Graduate Majors**

**Geography MA, CPhil, PhD**

The department offers the PhD degree in Geography (an MA degree may be earned in the process of completing PhD requirements). Student research projects are conducted in collaboration with a faculty adviser and advisory committee. Graduate students work in most major areas of geography and on projects around the world. Graduate alumni of the department have teaching positions at many leading universities in the U.S. and abroad.

**Requirements**

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

**Master of Applied Geospatial Information Systems and Technologies**

**Requirements**

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

**Geography Lower-Division Courses**

1. **Earth’s Physical Environment.** (5) Lecture, three hours; laboratory, two hours. Study of Earth’s physical environment, with particular reference to nature and distribution of landforms and climate and their significance to people. P/NP or letter grading.

2. **Biodiversity in Changing World.** (5) Lecture, three hours; discussion, two hours. Biogeographic exploration of plant and animal diversity and conservation issues on continents and islands around world. Study of physical, biotic, and human factors responsible for evolution, persistence, and extinction of species and ecological communities. Analysis of effects of human activity. P/NP or letter grading.
Upper-Division Courses

Environmental Studies and Natural Systems

101. Principles of Geomorphology. (4) Formerly numbered 100.) Lecture, three hours; reading period, one hour. Requisite: course 1. Study of processes that shape world’s landforms, with emphasis on weathering, mass movements, transport, deposition; energy and material transfers; space and time considerations. P/NP or letter grading.

102. Soils and Environment. (Formerly numbered M127.) Same as Ecology and Evolutionary Biology M127 and Environmental Science M120.) Lecture, three hours; discussion, one hour; field trips. General treatment of soils and environmental implications: soil development, morphotype, and worldwide distribution of soil orders; physical, chemical, hydrologic, and biological properties; water use, erosion, and pollution; management of soils as related to plant growth and distribution. P/NP or letter grading.

102L. Soils and Environment: Field. (Formerly numbered M127L.) Same as Ecology and Evolutionary Biology M127L and Environment M120L.) Laboratory, one hour; field excursions. Corequisite: course 116. Reinforcement of key issues in supporting material in course M102, including excavating, describing, and naming soils in field, soil forming processes, geomorphology, and soils. P/NP or letter grading.

103. Soil and Water Conservation. (Formerly numbered M103.) Same as Environment M103.) Lecture, three hours; discussion, one hour. Enforced requisite: one course from course 1, 2, Environment 10, Life Sciences 7B. Designed for juniors/seniors. Systematic study of processes of and hazards posed by erosion, sedimentation, development, and pollution and techniques needed to conserve soil and maintain environmental quality. Scope includes agriculture, forestry, mining, and other rural uses of land. P/NP or letter grading.

106. World Vegetation. (Formerly numbered 108.) Lecture, three hours; reading period, one hour. Limited to juniors/seniors. Characteristics, distribution, environmental and cultural relationships of world’s principal vegetation patterns. P/NP or letter grading.

107. Forest Ecosystems. (Formerly numbered 111.) Lecture, three hours; field trips. Requisite: course 1 or 2 or Life Sciences 7B. Designed for juniors/seniors. Evaluation of ecological principles as they apply to forests. Emphasis on constraints of physical environment, biotic interaction, disturbances, and long-term environmental change. P/NP or letter grading.


109. Biogeography of Plant and Animal Invasions. (Formerly numbered 116.) Lecture, three hours; reading period, one hour. Enforced requisite: courses 1 or 2 or Life Sciences 7B. Designed for juniors/seniors. Analysis of processes of expansion and contraction of distribution areas. P/NP or letter grading.

110. Ecosystem Ecology. (Formerly numbered M117.) Same as Ecology and Evolutionary Biology M121.) Lecture, three hours; field trips. Corequisite: course 1 or Life Sciences 7B. Designed for juniors/seniors. Development of principles of ecosystem structure and function. Emphasis on energy and water balances, nutrient cycling, plant-soil-microbe interactions, landscape heterogeneity, and human disturbance to ecosystems. P/NP or letter grading.

116. Climatology. (Formerly numbered 104.) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Examination of many relations between climate and world of man. Application of basic energy budget concepts to microclimates of relevance to ecosystems of agriculture, animals, man, and urban places. P/NP or letter grading.

117. Tropical Climatology. (Formerly numbered 102.) Lecture, three hours. Introduction to the development of tropical climate, with special reference to hurricanes, ENSO, and monsoons. Examination of human interaction with tropical climate processes and human response to climate change. Use of climatological information to foster sound environmental management of climate-related resources in tropics. P/NP or letter grading.

M116. Applied Climatology: Principles of Climate Impacts on Natural Environmental Systems. Formerly numbered M106.) Lecture, three hours; discussion, one hour. Designed for juniors/seniors. Exploration of principles and tools to solve complex problems in contemporary applied climatology, including current practices, influence of climate on environment, and human influence on changing climates. P/NP or letter grading.

119. Global Climatology and Climate Change. (4) Lecture, three hours. Requisite: course 1. Survey of Earth’s climate system and factors that cause globe’s climate to change. Study of most important properties of Earth’s atmosphere and how they interact and connect geographically and over time. Examination of physical laws governing climate variations and interconnections to build base-level understandings of natural climate phenomenon and its impacts on human and biogeocultural activities. Explanation of source of Earth’s heat energy, determinants of temperature near surface and throughout atmosphere, and how observed seasonal and spatial variations are created. Introduction to various motion systems in atmosphere and ocean and their governing physical laws. Exploration of nature and causes of past changes in global climate evident in paleorecords. Survey of current understanding of ongoing human-caused climate change event, and how climate models are used to develop projections of future climate changes. P/NP or letter grading.


M125. Environmentalism: Past, Present, and Future. (Formerly numbered M115.) Same as Environment M125 and Urban Planning M165.) Lecture, three hours; discussion, one hour. Exploration of history and origin of major environmental ideas, movements or countermovements they spawned, and new and changing nature of modern environmentalism. Introduction to early ideas of environment, how rise of modern sciences reshaped environmental thought, and how this was later transformed by 19th-century ideas and rise of American conservation movements. Review of policies of American environmental thought and contemporary environmental questions as they relate to broader set of questions about nature of development, sustainability, and equity in environmental debate. Exploration of issues in broad context, including global climate change, rise of pandemics, deforestation, and environmental justice impacts of war. Letter grading.

M127. Environmental Change. (Formerly numbered M131.) Same as Environment M126.) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Examination of natural forces producing environmental changes; three hours; discussion, one hour. Limited to juniors/seniors. Examination of many relations between climate and world of man. Application of basic

3. Cultural Geography. (5) Lecture, three hours; discussion, two hours. Introduction to cultural geography of modern world, with examination of key concepts of space, art, and landscape as these have shaped and been shaped by connections between societies and their natural environments. Examples from variety of landscapes and places since 1800 and especially from Los Angeles region. P/NP or letter grading.

4. Global Development and World Economy. (5) Lecture, three hours; discussion, two hours. Economic geography explores spatial distribution of all forms of human productive activity at number of geographical scales—local, regional, national, and global. Key theme is impact of increasingly powerful global economic forces on organization of production. P/NP or letter grading.

5. People and Earth’s Ecosystems. (5) Lecture, three hours; laboratory, two hours. Exploration of ways in which human activity impacts natural environment and how modification of environment can have significant consequences for human activity. Examination, using case studies, of real environmental problems that confront us today. P/NP or letter grading.


7. Introduction to Geographic Information Systems. (5) Lecture, three hours; laboratory, two hours. Designed for freshmen/sophomores. Introduction to fundamental principles and concepts necessary to carry out sound geographic analysis with geographic information systems (GIS). Reinforcement of key issues in GIS, such as geographic coordinate systems, map projections, spatial analysis, and visualization of spatial data. Laboratory exercises use database query, manipulation, and spatial analysis to address real-world problems. P/NP or letter grading.

9. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of current topic on topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

88A-88Z. Lower-Division Seminars: Geography. (4 each) Discussion, three hours; reading period, one hour. Seminars designed to explore various issues and themes pertinent to environment and people. Seminar topics reflect the department during previous term. P/NP or letter grading.

88GE. Seminar Sequence: Special Topics in Geography. (5) Seminar, three hours. Enforced requisite: course 5. Designed for sophomores/juniors. Exploration of one topic through readings, images, and discussions. P/NP or letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

90. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.
changing organization of production and resulting environment. Case studies from Africa, Latin America, Asia, and U.S. P/N or letter grading.

130. Food and Environment. (Formerly numbered M132.) Lecture; discussion; laboratory. Designed for juniors/ seniors. Thematic orientation to food systems and their role in environmental and cultural transformations. P/N or letter grading.

M131. Human Impact on Biophysical Environment. (Formerly numbered M108.) (Same as Environment M131.) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Examination of history, mechanisms, and consequences of interactions between humans and environment. Exploration in depth of three thematic topics (deforestation, desertification, and greenhouse gas increase and ozone depletion) and four major subjects (soil, biodiversity, water, and landforms). P/N or letter grading.

133. Humid Tropics. (Formerly numbered 113.) Lecture, three hours. Requisite: course 2 or 5 or Life Sciences 7B. Designed for juniors/seniors. Examination of humid tropics, with emphasis on rainforests, their ecological principles, and forms of land use. Letter grading.

135. Africa and African Diaspora in Americas. (Formerly numbered 114.) Lecture, three hours. Described for juniors/seniors. Analysis of historical, geographical, and cultural dimensions of African influence in the Americas, with emphasis on environment, agriculture, food systems, and medicinal plants. P/N or letter grading.

136. Health and Global Environment. (Formerly numbered 130 E-130 F.) Lecture, three hours; reading period, one hour. Impact of environment and lifestyle on individual health examined from geographical perspective, with examples from both developed and developing countries. P/N or letter grading.

138. Wildlife Conservation in Eastern and Southern Africa. (Formerly numbered 122.) Lecture, three hours; reading period, one hour. Requisite: course 5. In field trips to national parks and their natural and anthropogenic ecological dynamics. P/N or letter grading.

138B-139C. Problems in Geography, (4-4) (Formerly numbered 138B-139C.) Seminar: three hours; reading period, one hour. Preparation: completion of three courses in one concentration. Limited to seniors. Seminar course in which students carry out intensive research projects developed from courses within one concentration. P/N or letter grading. 139B. Biogeography 139C. Culture and Environment in Modern World.

Human Systems

140. Social Geography. (Formerly numbered 147.) Lecture, three hours; discussion, one hour. Study of spatiality of social phenomena such as race, class, gender, age, sexuality, location. Critical explorations of identity, social categories, and spatial structures. Importance of space and place in social life. P/N or letter grading.

141. Cultural Geography of Modern World. (Formerly numbered 133.) Lecture, three hours; reading period, one hour. Designed for juniors/seniors and graduate students. Historical and structural approach to cultural geography of modern world with particular emphasis on structure and functioning of its core, semi-periphery, and periphery. P/N or letter grading.

M142. (When) Do Leaders Make Differences? (Formerly numbered M153.) (Same as Anthropology M148 and Honors Collegium M152.) Lecture, two hours; discussion, two hours. Examination of leaders who did or did not succeed in effecting change, as background to understanding the conditions under which leaders can make differences. Comparison of political leaders, business chief executive officers, sports coaches, and religious leaders. Letter grading.

M144. Feminist Geography. (Formerly numbered M146.) (Same as Gender Studies M146.) Lecture, three hours; discussion, one hour. Critical engagement of gender as concept of geographic inquiry. Gender as spatial process, analysis of feminist geographic theory and methods, landscapes of gender, challenges of representing gender. Spaces of femininity, masculinity, and sexuality. P/N or letter grading.

145. Slavery and Human Trafficking. (4) Lecture, three hours; discussion, one hour. Study of history and contemporary forms of slavery and human trafficking. Examination of the nature of slavery, its cultural significance, and its impact on present day society. P/N or letter grading.

146. Environmental Justice and Climate Change. (4) Lecture, three hours. Designed for juniors/seniors. Study of environmental justice in the context of climate change. Examination of how environmental justice is impacted by climate change and how climate change affects environmental justice. P/N or letter grading.

151. Uneven Development Geographies: Prosperity and Impoverishment in Third World. (4) (Formerly numbered 140.) Lecture, three hours; discussion, one hour. Study of historical, political, and economic differences between countries in the Global South. How development has shaped livelihood possibilities and practices, by global processes shaping back centuries, and transformative possibilities of Third World agency. World societies seek to transform Third World into their own image through theories and practices of colonialism, development, and globalization. Study of those theories and Third World alternatives to examine how they have shaped livelihood possibilities for Third World people. Social differences and stagnant livelihood possibilities for Third World majority and minorities that prosper massively, as well as geographical differences (cultural, environmentally, and socially) across the Third World. Examination of key terms and paradigms of Third World agency, ranging from inter-state collaboration to village activism, asking whether such agency or alternative imaginaries can enable Third World residents to break with First World developmentalism. P/N or letter grading.

153. Transportation Geography. (4) (Formerly numbered M149.) (Same as Urban Planning M150.) Lecture, three hours; discussion, one hour. Designed for juniors/seniors. Study of geographical aspects of transportation, with focus on characteristics and functions of various modes and on complexities of intra-urban transport. P/N or letter grading.

158. Population Geography. (4) (Formerly numbered 142.) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Study of social and behavioral perspectives influencing people in their pattern of life and geographic changes they impose, with special emphasis on spatial relationships and selected case studies. P/N or letter grading.

159. Population in Interacting World. (4) (Formerly numbered 143.) Lecture, three hours; discussion, one hour. Designed to provide multidisciplinary understanding of and application for human population phenomena and problems in different parts of the world and at different geographical scales—from local to global. Particular emphasis on understanding and critically reflecting on (1) contemporary population problems at local, national, and local scale, including both dramatic decline and persistence of high levels of fertility in parts of developing world, record low fertility and population aging in highly industrialized countries, increasing levels of international migration, refugee crises, massive rural to urban migrations, and creation of new cities, (2) policies adopted to address these problems, such as family planning policies to reduce fertility, immigration policies, and so on, and (3) gender dimension of contemporary population problems and policies. P/N or letter grading.

160. Urban Geography. (4) (Formerly numbered 150.) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Analysis of development, functions, spatial patterns, and geographic problems of cities. P/N or letter grading.

161. Cities and Social Difference. (4) (Formerly numbered 151.) Lecture, three hours; discussion, one hour. City landscapes embody best and worst of U.S. society: diversity and poverty, racism and privilege. Study of urban spaces, social differences, inequality, and conflicts over uses and meanings of city space. Social urban geography. P/N or letter grading.

162. Ethnicity in American Cities. (4) (Formerly numbered 144.) Lecture, three hours; reading period, two hours. Limited to juniors/seniors. Designed to encourage and facilitate critical thinking about geographical aspects of ethnicity in contemporary America. Use of comparative perspective to explain changing distribution, social, economic, and political behavior, and adjustment problems ethnic groups face in adapting to city life. P/N or letter grading.

169A. Problems in Geography: Urban and Regional Development Studies. (4) (Formerly numbered 159A.) Seminar, three hours; reading period, one hour. Preparation: completion of three courses in one concentration. Limited to seniors. Seminar course in which students carry out intensive research projects developed from courses within one concentration. P/N or letter grading.

Regions

171A. North America. (4) (Formerly numbered 180.) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Delimitation and analysis of major geographic regions of U.S. and Canada. P/N or letter grading.
171B. California. (4) (Formerly numbered 184.) Lecture, three hours; reading period, one hour. Limited to juniors/seniors. Systematic and regional treatment of geographic distributions, physical, cultural, and economic aspects and detailed studies of various regions, P/NP or letter grading.

171C. Metropolitan Los Angeles. (4) (Formerly numbered 156.) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Study of origins, growth processes, internal structure and pattern, interactions, environmental and spatial problems of Los Angeles metropolitan area. P/NP or letter grading.

172A. Spanish South America. (4) (Formerly numbered 182.) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Study of geographic factors, physical and cultural, that are basic to understanding historical development of Spanish South America and contemporary economic and cultural geography of individual Spanish-speaking countries. P/NP or letter grading.

172B. Central America. (4) (Formerly numbered 181.) Seminar, two and one half hours. Located at center of American continent, Central America has been shaped by historical and contemporary interactions of culture and place in Japan. Exploration of how transnational migration has created expansive Central American diaspora that produces effects in isthmus and abroad. Letter grading.

172C. Brazil. (4) (Formerly numbered 182B.) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Study of geographic factors, physical and cultural, that are basic to understanding historical development of South America and contemporary economic and cultural geography of Brazil. P/NP or letter grading.

173A. Cities of Europe. (4) (Formerly numbered 152.) Lecture, three hours; reading period, one hour. Limited to juniors/seniors. Urbanization of Europe, growth of city systems and internal spatial structure, functions, and geographic problems of contemporary European cities. Particular attention to historical development and landscapes of central European cities such as Rome, Paris, and Berlin. P/NP or letter grading.

174A. The Mediterranean World. (4) (Formerly numbered 183.) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Study of geographic factors, physical and cultural, that are basic to understanding historical development of Mediterranean region, with emphasis on 1500s to present. Introduction to great disputes in history and ecology centered on this region and character of two shores of Mediterranean basin. P/NP or letter grading.

175A. Japan in World: Culture, Place, and Global Connections. (4) (Formerly numbered 139.) Lecture, three hours; reading period, one hour. Focus on questions of culture and place in Japan. Exploration of ways that these questions—and Japan itself—have been shaped by historical and contemporary interactions involving both Japan and other parts of world. P/NP or letter grading.

175B. Contemporary China. (4) (Formerly numbered 186.) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Systematic geographic analysis of elements of landscape, resources, population, and socioeconomic characteristics of People’s Republic of China. Dynamics that have led to China’s major role in East Asian and international scene, with special emphasis on China’s role in the Pacific region. Study of political relations and their geographic bases. P/NP or letter grading.

176A. Southeast Asia. (4) (Formerly numbered 185.) Lecture, three hours; reading period, one hour. Limited to juniors/seniors. Regional synthesis with varying emphasis on people of South or Southeast Asia in their physical, biotic, and cultural environment and its dynamic transformation. P/NP or letter grading.

Procedures

178. Conservation Geography Field and Professional Practices. (3) Fieldwork, eight hours; research group meeting, three hours; one-, three-, and four-day field trips. Limited to senior Geography and Geographics/Economics. Emphasis by application. Field focus on California vegetation and its response to current and future climate change. Students learn to collect field data, and to conduct field vegetation research. Students learn to work as professional research consultants in teams, develop consulting research proposals, consultant assessment reports, and present those reports orally and in written form. Field sites include Mono Lake, Great Basin Desert, Great Basin Desert, pinyon pine woodland, pine-fire forest, alpine treeline, White Mountains, Sierra Nevada, and coastal pine and redwood forests. P/NP or letter grading.


181A. Intermediate Geographic Information Systems. (4) (Formerly numbered 170.) Lecture, four hours; laboratory, two hours; laboratory, two hours. Enforced requisite: course 7. Extensive study of basic concepts presented in course 7. How geographic and spatial analyses inform, integrate, and extend decision making across the life, and social sciences. Discussion of range of decisions and critical judgments necessary to carry out sound spatial analyses. Development of technical proficiency within geographic information systems (GIS) environment. P/NP or letter grading.

181B. Advanced Geographic Information Systems. (4) (Formerly numbered 170.) Lecture, three hours; discussion, one hour. Enforced requisite: course 181A. Introduction to full geographic information systems (GIS) functionality, using ARC/INFO on UNIX workstations. Spatial manipulation, query, and computation of datasets carried out in project-oriented approach. P/NP or letter grading.

181C. Geographic Information Systems Programming and Development. (4) (Formerly numbered 173.) Lecture, two hours; laboratory, two hours. Enforced requisite: course 181A. Introduction to fundamental concepts and architecture of programming objects in widely used geographic information systems (GIS), and programming in GIS environment. Topics include GIS customization and development using variety of programming languages. Lectures followed by laboratory exercises. P/NP or letter grading.

182A. Introduction to Remote Sensing. (4) (Formerly numbered 169.) Lecture, two hours; laboratory, one hour. Enforced requisite: course 181A. Introduction to fast-growing field of environmental monitoring from space. Application of Landsat, radar, Global Positioning System (GPS), and Earth Observing System satellites to land-use change, oceanography, meteorology, and environmental monitoring. Introduction to digital image-processing and imaging geographic information systems (GIS) software. P/NP or letter grading.

182B. Remote Sensing: Digital Image Processing and Analysis. (4) (Formerly numbered 172.) Lecture, three hours; laboratory, one hour. Enforced requisite: course 182A. Digital processing methods for manipulating and analyzing image data. Topics include statistical description, geometric and radiometric correction, classification, image enhancement and filtering, and change detection. Reinforcement procedures presented in lecture with laboratory exercises and student project. P/NP or letter grading.

182C. Advanced Remote Sensing. (5) (Formerly numbered 174.) Lecture, three hours; laboratory, two hours. Enforced requisite: course 182A. Remote sensing in visible and infrared wavelength regions to understand basic concepts of radiation propagation and interaction with matter, how digital remote sensing images are acquired, and constraints on available data and data analysis. P/NP or letter grading.

184. Environmental Modeling. (4) (Formerly numbered 166.) Lecture, one hour; laboratory, two hours. Presentation of basic concepts related to computer modeling of physical, geographic processes, and other phenomena relevant to changing Earth and its inhabitants. Laboratory exercises include building basic computer models and working with existing models. P/NP or letter grading.

185. Field Methods in Physical Geography. (5) (Formerly numbered 177.) Lecture, three hours; laboratory, three hours. Enforced requisite: course 182A. Examination of field procedures and concepts used in observation, measurement, analysis, and interpretation of physical phenomena pertinent to natural and built environment. Topics vary from year to year and may include soils, geomorphology, and field methods in geographic information science. May be repeated for credit with topic change. P/NP or letter grading.

M186. Introduction to Spatial Statistics. (4) (Formerly numbered M171.) (Same as Statistics 12, 13.) Introduction to methods of measurement and interpretation of geographic distributions and associations. P/NP or letter grading.

187. Research and Writing in Human Geography. (4) (Formerly numbered 161.) Seminar, three hours. Limited to seniors. Writing and research are two key aspects of what human geographers do. Students improve writing through proposing and conducting selective research projects, while also stepping into the role of student with idea of topic of interest. Students learn process of doing geography research, including how to ask good research questions, how to search for relevant sources, how to construct argument, how to build literature review, and how to properly cite and incorporate academic sources. Cullminating final paper on topic of choice. Weekly discussion workshops offer opportunity to exchange work with peers, giving useful feedback and opportunity to learn how to offer feedback and how to incorporate feedback into editing their work. Letter grading.

Special Studies

188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced requisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contact with faculty mentor required. May not be repeated. Letter grading.


188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced requisite: course 188SB. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE BSS course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors credit counted as transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual contract required. Honors content noted on transcript. Letter grading.
191. Variable Topics Research Seminars: Geography. (4) Seminar, three hours. Research seminars on selected topics in geography. Some sections may require prior permission. Consult Schedule of Classes for topics and instructors. May be repeated for credit and may be applied as elective units toward departmental majors and minors. P/NP or letter grading.

195. Community or Corporate Internships in Geography. (4) Lecture, four hours. Limited to juniors/seniors. Internship of eight to 10 hours per week in supervised setting in community agency or business. Students meet on regular basis with instructor and provide primary insight and experience of the field. May be repeated for credit. Individual contract with supervising faculty member required. P/NP grading.

198A-198B. Honors Research in Geography I, II. (4-4) Tutorial, to be arranged. Preparation: 3.5 grade-point average overall, at least five upper-division geography courses with 3.5 grade-point average. Limited to juniors/seniors. Development and completion of honors thesis or comprehensive research project under direct supervision of one or two faculty members. May be repeated for maximum of 16 units. Individual contract required. Letter grading.

199. Special Studies. (2 to 8) Tutorial, to be arranged. Limited to juniors with B average in major or seniors. May be repeated for maximum of 16 units. P/NP or letter grading.

Graduate Courses

Core

200A. History and Structure of Modern Geography. (4) Lecture, three hours; reading period, one hour. Evolution of field of geography in 19th and 20th centuries, with emphasis on professionalization of geography and its emergence as modern academic discipline. S/U or letter grading.

200B. Seminar: Geographical Inquiry. (1) Seminar, one hour. Discussion of geographical research within context of philosophical debates concerning nature of scientific inquiry. S/U grading.

Methods

211. Research Design in Geography. (4) Lecture, four hours. Introduction to logic of geographic inquiry. Topics include questions surrounding philosophy of science, research design issues, and range of methods of data collection. Use of rigorous data collection and analysis in geographical research. S/U grading.

212. Qualitative Methods and Methodology. (4) Seminar, three hours; laboratory, two hours. Examination of definition and use of qualitative methodology and methods in social-cultural geographic research. Exploration of relationship between methodology and epistemology; review of range of research methods and techniques, including interviewing and focus groups, observation, action research, ethnography, and interpretation of material culture, and consideration of ethical and practical issues of conducting qualitative research. S/U or letter grading.

215. Advanced Field and Laboratory Methods in Biophysical Geography. (4) Laboratory, five hours; fieldwork, five hours. Examination of advanced field and laboratory procedures used in contemporary biophysical geography research. May be repeated for credit with instructor change. S/U or letter grading.


216. Advanced Medical Geography. (4) Lecture, two hours; discussion, one hour. Field course. Requisite: course 118. In-depth study of selected topics in medical geography and intensive review of recent research. S/U or letter grading.

Human Geography

224. International Migration. (4) Same as Sociology, M236B. Lecture, three hours. Further exploration of key current theoretical debates in study of international migration, with emphasis on exploring both theoretical debates of field and empirical data and case studies on which those debates hinge, to encourage students to undertake research in field. S/U or letter grading.

229A. Development Theory. (4) Same as Urban Planning M235A. Lecture, three hours. Review of basic literature and schools of thought on development theory through analysis of impact of mercantilism, colonialism, capitalism, and socialism on various urban and rural social and economic structures in Third World. Presentation, through evaluation of theoretical writings and case studies, of complexity and diversity of development theories. Emphasis on linkages between policy and rural and urban impacts. Gives students important background for courses M229B, M239C, and many other planning courses addressing Third World issues. Letter grading.

239. Ecological Issues in Planning. (4) Same as Urban Planning M234B. Lecture, three hours. Recommended preparation: Urban Planning M265. Science and politics of modern environmentalism and planning in light of transformations inherent in global change, including how to address these questions in ways that go beyond green consumerism and bifurcation of wild, ecological, and human environments. American environmentalism has become dominant model for many conservation practices. Informed by Marxist model of idea of untrammeled nature with people-less set-asides for spiritual and scientific contemplation of nature. Approach used to cast in doubt the centrality of nature and as key idea in conservation and fragment biology. At opposite end is environmental planning devoted to infrastructural development of hyper-human habitats (cities). Exploration of these competing models and many reasons to be skeptical of both in 21st century. Letter grading.

229C. Resource-Based Development. (4) Same as Urban Planning M234C. Lecture, three hours. Recommended preparation: course M229A. Some major issues associated with development of specific natural resources. Topics include nature of particular resource or region associated with it, its previous management, involvement of state, corporations, and local groups, and environmental and social impact of its development. Letter grading.

230A. Theories of Regional Economic Development I. (4) Same as Public Policy M240 and Urban Planning M236A. Lecture, one hour. Introduction to theories of location of economic activity, trade, and other forms of contact between regions, process of regional growth and decline, reasons for different levels of economic development, relations between more and less developed regions. Letter grading.


235. Seminar: Social Geography. (4) Seminar, three hours; reading period, one hour. Process of doing social/cultural geography entails conceptualizing, adapting, and reformulating social and critical theories of space, subject, and power. Examination of this process by considering theoretical themes that shape concepts of social space and social research. Theoretical discussions of recent research in social/cultural geography, particularly around topics of gender, race sexuality, subjects and place and agency, and social difference and identity. S/U or letter grading.

236. Seminar: Cultural Geography. (4) Seminar, three hours; reading period, two hours. Discussions on particular topics in cultural geography. Content may vary from year to year. May be repeated for credit. S/U or letter grading.

237. Seminar: Historical Geography. (4) Seminar, three hours; reading period, two hours. Theory and practice of historical geography in North America and Europe. May be repeated for credit. S/U or letter grading.

238. Seminar: Urban Geography. (4) Seminar, three hours; reading period, two hours. Requisite: course 250. Related research projects growing out of course 250. May be repeated for credit. S/U or letter grading.

240. Seminar: Geographic Thought. (4) Seminar, three hours; reading period, two hours. Discussion and study of topics significant to growth of modern philosophy of geography. S/U or letter grading.

Human Geography Advanced

245. Advanced Political Geography: Geopolitics. (4) Lecture, two hours; discussion, one hour; reading period, one hour. Intensive study of theories and principles of geopolitics. Selected regions used as examples of differing techniques of study in geopolitics. S/U or letter grading.
remotely sensed imagery and raster data with proprietary, open-source, and cloud-based remote sensing and image analysis platforms. Letter grading.

412. Programming for Geospatial Data Science I. (4) Lecture, two hours; laboratory, two hours. Requisite: course 401. Conceptual and practical instruction in use of scripting, automation, and computer programming within geospatial sciences. Students use Python programming language to develop geospatial processing scripts and applications, making use of popular geospatial data manipulation libraries. Introduction to statistical computing and tabular data processing and analysis techniques. Students learn to apply common spatial analysis methods in practical context. Emphasis on essential relationships, spatial autocorrelation analysis, cluster analysis, spatial regression analysis, pattern analysis, and space-time modeling. Letter grading.

413. Applied Geospatial Statistics. (4) Lecture, two hours; laboratory, two hours. Requisite: course 401. Concepts and techniques fundamental to spatial statistics and analysis and visualization of data with geographic dimension. Introduction to statistical computing and tabular data processing and analysis techniques. Students learn to apply common spatial analysis methods in practical context. Emphasis on essential relationships, spatial autocorrelation analysis, cluster analysis, spatial regression analysis, pattern analysis, and space-time modeling. Letter grading.

414. Programming for Geospatial Data Science II. (4) Lecture, two hours; laboratory, two hours. Requisite: course 401. Introduction to technologies and techniques that support growing field of interactive Web-based geographic information systems and mapping. Study of theory and concepts underlying this rapidly growing field. Applied training is provided in Web mapping, development, and program design. Students learn to develop sophisticated interactive Web maps and applications both by using existing Web mapping platforms and also by coding custom Web maps integrating HTML, CSS, JavaScript programming language, and Web mapping code libraries. Letter grading.

415. Geospatial Data Science Futures. (4) Seminar, two hours; laboratory, two hours. Requisite: course 401. Applied exploration of emerging technologies and methods in geospatial technology with focus on learning state-of-art geospatial data analysis and management techniques. Topics of interest introduced in seminar format by subject matter experts and faculty. Through discussions and biweekly applied project work, geospatial research methods are situated in their broader context. Application of innovative geospatial research methods to better understanding spatial dimension of data. Letter grading.

498. Capstone I: Geospatial Research Methods. (4) Seminar, two hours; laboratory, two hours. Requisite: course 401. Instruction in core geospatial project management and research design techniques, as well as geospatial technology research methods. Structured environment for students to propose and begin capstone project. Includes study of appropriate and ethical application of geospatial methods and technology. Projects proposed should be original analyses of geospatial data that solve pressing problem, optionally developed in conjunction with university or industry partner. Letter grading.

499. Capstone II: Geospatial Capstone Project. (4) Laboratory, four hours. Requisites: courses 401, 498. Completion of required capstone research project. Students meet weekly with faculty advisor to discuss progress, learn technical writing skills, and chart goals for timely completion of project. Successful completion and approval of capstone project is required for satisfactory completion of course. May be repeated for credit. Letter grading required to meet MAGIST program requirements. S/U or letter grading.

Special Studies

495. Teaching College Geography. (2) Seminar, one hour; laboratory, three hours. Classroom practice in teaching, with individual and group instruction on related educational methods, materials, and evaluation. May be repeated for credit. S/U grading.

597. Preparation for PhD Qualifying Examinations. (2 to 8) Tutorial, to be arranged. Independent study. May be repeated for credit. S/U grading.


Overview

The worldwide expansion of the older adult population ensures that issues regarding aging will dominate our environmental, economic, social, political, psychological, and medical concerns and endeavors well into the twenty-first century. The undergraduate minor in Gerontology provides students with a foundation understanding of the current state of science related to human aging, enables students to assess longevity’s potential contribution and challenge to contemporary society, and provides students with an appreciation of opportunities to contribute, personally and professionally, to a diverse aging society.

Policies

Students who have completed Clusters 80A with a grade of B or better, and have an overall grade-point average of 2.0 or better, do not need to take Gerontology M108. Successful completion of this cluster sequence (Clusters 80A, 80BX, 80CW) counts for M108 and one elective course. A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor. Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Gerontology

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

98. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrollment. Examination of gender and ethnicity within the context of both physical and social aging, in multidisciplinary perspective utilizing faculty from variety of fields to address issues of diversity. Letter grading.

M104D. Public Policy and Aging. (4) Same as Social Welfare M1104D.) Lecture, four hours. Examination of theoretical models and concepts of policy process, with application to aging policy. Analysis of decision-making processes that affect aging policy. Description of current policy issues affecting elderly. P/NP or letter grading.

Upper-Division Courses

M104C. Diversity in Aging: Roles of Gender and Ethnicity. (4) Same as Chicana/o and Central American Studies M1068, Gender Studies M124C, Public Affairs M124A, and Social Welfare M124A.) Lecture, four hours. Exploration of complexity of variables related to diversity of aging population and variability in aging process. Examination of gender and ethnicity within the context of both physical and social aging, in multidisciplinary perspective utilizing faculty from variety of fields to address issues of diversity. Letter grading.

M104D. Public Policy and Aging. (4) Same as Social Welfare M1104D.) Lecture, four hours. Examination of theoretical models and concepts of policy process, with application to aging policy. Analysis of decision-making processes that affect aging policy. Description of current policy issues affecting elderly. P/NP or letter grading.

M104E. Social Aspects of Aging. (4) Same as Social Welfare M1064E.) Lecture, four hours. Topics include theories of aging, economic factors, changing roles, social relationships, and special populations. Weekly seminars organized around key aspect of social gerontology. P/NP or letter grading.
M108. Biomedical, Social, and Policy Frontiers in Human Aging. (5) (Same as Public Affairs M130 and Social Welfare M108.) Lecture, four hours. Limited to juniors/seniors. Human aging charted in ways that are based on variety of recent research frontiers. Use of conceptual frameworks to increase relevance of aging to students’ lives and enhance their critical thinking—biopsychosocial approach that is based on recognition that aging is inherently interdisciplinary phenomenon, and life course perspective that is distinguished by analytical framework it provides for understanding interplay between human lives and changing social structures, and allows students to understand how events, successes, and losses at one stage of life can have important effects later in life. Focus on activities as they age within one particular sociohistorical context. Letter grading.

M119O. Psychology of Aging. (4) (Same as Psychology M119O.) Lecture, four hours. Requisite: Psychology 115. Designed for juniors/seniors. Aging refers to developmental changes occurring at end stages of life. Some alterations that occur represent improvement, others are detrimental. Examination of impact of aging process on mental phenomena and exploration of ways in which positive changes can be maximized and impact of detrimental alterations minimized. P/NP or letter grading.

M119X. Biology and Behavioral Neuroscience of Aging. (4) (Same as Psychology M119X.) Lecture, three hours. Limited to juniors/seniors. Biological mechanisms of aging process and its terminal phase, death, have been increasingly studied in recent years. Establishment of what is known experimentally about biology and behavioral neuroscience of aging and evaluation of theories developed to account for this knowledge, P/NP or letter grading.

120. Sex and Aging. (4) Lecture, three hours. Sexuality in aging from psychological, psychobiological, physical, and psychosocial perspectives, with emphasis on differences between females and males concerning physical and social changes that occur with aging and how this impacts on emotional well-being and human sexual response. P/NP or letter grading.

M142XP. Intergenerational Communication across Lifespan. (Formerly numbered M142SL) Lecture, three hours; fieldwork, one hour. Limited to juniors/seniors. What do you say to your parents in conversation? How do you talk to your grandparents? Does your family talk well to one another? How do you communicate well with boss who is 30 years older than you? How do you communicate with someone who is just the opposite group? How do you handle the conflict with another? Individuals of all ages interact with one another, and their interactions have significance throughout their lives. Introduction to psychological, interpersonal, and societal issues related to intergenerational communication across lifespan. Letter grading.

M150. Sociology of Aging. (4) (Same as Sociology M150.) Lecture, three hours; discussion, one hour. Study of sociological processes shaping definition, experience, and response to aging in contemporary society. Topics include race, class, and gender in aging over life course; interpersonal relations and social worlds of aged; caregiving relations and institutions; professions concerned with aged and aging. Letter grading.

M165. Disability Policy and Services in Contemporary America. (4) (Same as Disability Studies M130 and Social Welfare M165.) Lecture, three hours. Limited to juniors/seniors. Growing numbers of people of all ages with disabilities are leading active and productive lives in American communities. Many others are struggling to lead such lives. Who are people with disabilities in contemporary America? How has U.S. response to people with disabilities changed over time? What do we know about extent to which public policies and programs are responsive to people in need? How do demographics, economics, and politics continue to influence evolving public policy responses? P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual student with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

195. Community or Corporate Internships in Gerontology. (2 to 10) Tutorial, six to 12 hours. Requisite: course M108, or Clusters 80A and 80BX. Limited to juniors/seniors. Students propose their own ideas for internship project and petition for its approval. Approval of internship is contingent on position having relevance in field of gerontology, may be repeated for credit. Individual contract with supervising faculty member required. P/NP or letter grading.

199. Directed Research or Senior Project in Gerontology. (4) Tutorial, to be arranged. Requisites: course M108, or GE Clusters 80A and 80BX. Limited to juniors/seniors. Supervised individual research under guidance of gerontology faculty mentor. Submission of weekly writing assignments and research paper at end of term. Eight units of 199 (or 195CE) required for successful completion of minor. Individual contract required. Information and contracts may be obtained from Gerontology Advising Office. Letter grading.

GLOBAL HEALTH
Interdisciplinary Minor
College of Letters and Science
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Global Health
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Minor e-mail
Ippolytos A. Kalofonos, MD, PhD, MPH, Chair
Faculty Committee
Victor Agadianian, PhD (Sociology)
David H. Gere, PhD (World Arts and Cultures/Dance)
Ippolytos A. Kalofonos, MD, PhD, MPH (Anthropology, Psychiatry and Biobehavioral Sciences)
Michael F. Lofchie, PhD (Political Science)
Anne W. Rimoin, PhD (Epidemiology)
Overview
The Global Health minor allows students to develop an interdisciplinary understanding of health issues in a global context. Students take courses that provide opportunity to become familiar with approaches to global health from the perspective of the social sciences, arts, and humanities, as well as the physical and biobehavioral sciences. The minor is appropriate for students from all majors.

Undergraduate Minor
Global Health Minor
Admission
To be admitted to the minor, students must be in good academic standing (overall grade-point average of 2.0 or better) and have completed all lower-division minor courses with a GPA of 2.0 or better in those courses.

After satisfying these requirements, students may declare the minor in consultation with the academic counselor.

The Minor
Required Lower-Division Courses (10 units):
Two courses from Civil Engineering 58XB, Clusters 80A, 80BX, 80CW, Community Health Sciences 91, Global Studies 1, History 3D, Honors College 1, 14, 26, International and Area Studies 1, Molecular, Cell, and Developmental Biology 60, Nursing 50, Statistics 13, World Arts and Cultures 2, 33.

Required Upper-Division Courses (20 to 25 units): Global Health 100 and four courses from the following theme areas, with a maximum of two courses from any single area:

Art: World Arts and Cultures 144, C158, C159, 160.
Community Health: Community Health Sciences 100, 161, CM170, 187A, 187B, 195, Health Policy and Management 140, Psychiatry and Biobehavioral Sciences 175, Psychology 150.
Environmental Health: Environment 166, M167, Environmental Health Sciences 100, C185A, C185B.
Genetics: Honors Collegium 141, Society and Genetics 162, 163.
Health Humanities and Communication: English Composition 131C, History 179A, 179B.

Policies
A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall
grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Global Health

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP or letter grading.

Upper-Division Courses

100. Global Health and Development. (4) Lecture, three hours; discussion, one hour (when scheduled). Interdisciplinary examination of key issues in area of global health, with focus on developing world. Provides basis for understanding current debates that frame global health problems and actions in and across nations with strikingly different political-economic contexts. Discussion of how local and international communities attempt to address challenges of global health problems and how interventions play out through range of policy and programmatic approaches. P/NP or letter grading.

110A-110B. Field Studies in Global Health. (4-4) Seminar, three hours. Enforced corequisite for course 110A: course 110B. Exploration of issues regarding global health in important locations around world. Hands-on experiential courses offered for students participating in UCLA Travel Study Program. Field trips included to gain first-hand experience. May be repeated with topic and/or location change. Offered in summer only. P/NP or letter grading.

140. Equity-Focused Program Evaluation in Global Health: Theory and Practice. (4) Lecture, three hours; discussion, one hour. Requisite: course 100. Interdisciplinary approach to providing solid understanding of equity-focused evaluation theories and practices. Discussions are guided by principles of equity and human rights-based approach to global health. Focus on evaluation of policies, programs, and equitable delivery of health services for most vulnerable and marginalized populations. Case studies to learn about equity-focused research and evaluation concepts and methodologies. Case study topics include impact of COVID-19 pandemic and response to it in relation to our students. For instance, COVID-19 has had greater impact on African American, Latin American, and indigenous communities than on white populations, and it has unmasked disparities in access to health care, education, and technology, which often reflect in student performance. Students are encouraged to examine relevance of class discussions in their own communities and in terms of their aspirations for creating better, more equitable, and healthier world. P/NP or letter grading.

150. Migration and Health. (4) Lecture, three hours; discussion, one hour. Introduction to history, current status, and future of migration and health using social determinants of health model to foster multidisciplinary analysis of status of migrant health around world. Exploration of social determinants of health affecting migrating populations, including gender, race, ethnicity, socioeconomic status, poverty, religion, politics, governance, and environment. Letter grading.

160. Selected Topics in Global Health. (4) Lecture, three hours; discussion, one hour (when scheduled). Examination of one or more topics related to global health. May be repeated for credit with topic change. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.


Global Jazz Studies

Interdepartmental Program Herb Alpert School of Music
2520 Schoenberg Music Building
Box 951657
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Global Jazz Studies
310-825-8381

Steven J. Loza, PhD, Chair

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Cheryl L. Keyses, PhD (African American Studies, Ethnomusicology)
Steven J. Loza, PhD (Ethnomusicology)
Arturo O’Farrill, MM (Music)
Shana L. Redmond, PhD (Musicology)

Faculty Roster

Professors
Terence O. Blanchard
Robin D.G. Kelley, PhD (Gary B. Nash Endowed Professor of U.S. History)
Arturo O’Farrill, MM

Professors Emeriti
Kenneth E. Burrell, BA
James W. Newton, BM

Lecturers
Duane C. Benjamin
Clayton Cameron, BM
Jésus A. Guzmán
Charles A. Harrison, MM
Tamir Hendelman, BM
T. Jacques Lesure
Hitomi M. Obi, MA
Daniel A. Rosenboom, DMA
Otmaro Ruiz, MFA
Luciana Souza, MM
Arturo J. Stable, MM

Adjunct Professors
Mark F. Turner, BM
Michele A. Weir, MA

Adjunct Associate Professors
Alison S. Deane, MM
Roberto Miranda, MM
Ruth Price

Overview
The Bachelor of Arts (BA) degree in Global Jazz Studies is a capstone major designed to provide students with an interdisciplinary education that draws from various areas of the UCLA Herb Alpert School of Music, as well as from the arts and social sciences. The curriculum is designed around three major areas: (1) performance courses designed to advanced students’ skills individually and playing in small combos and larger ensembles; (2) musician- and music theory courses in which students master improvisation, basics of music theory, arranging, and composition; and (3) broad understanding of the historical and societal context of the development and advancement of jazz in the United States and globally.

Undergraduate Major

Global Jazz Studies BA

Capstone Major
The Global Jazz Studies major is a designated capstone major. The capstone project, usually done in the senior year, is tailored to each student and includes a seminar class (course 186A) and a capstone presentation such as a recital, lecture-demonstration, or lecture-recital (186B). The capstone experience provides an appropriate vehicle for the faculty to assess the students’ accomplishments during their tenure in the program.
Learning Outcomes
The Global Jazz Studies major has the following learning outcomes:

• Advanced-level performance of multiple jazz styles across historical periods and contemporary jazz performance practices
• Demonstrated proficiency in styles representative of Africa, the African diaspora, and at least one other world music culture
• Demonstrated advanced skill and understanding in improvisation, musical structure and instrumentation, composition, arranging, timbre, and expression
• Demonstrated basic proficiency in areas of programming, recording, and/or post-production
• Demonstrated interdisciplinary knowledge of global jazz as text and method
• Intereogtion of the concerns of jazz as a comprehensive practice, including its capacity to transform the musical, political, and socioeconomic world it engages

Entry to the Major
Admission
Applicants are reviewed individually, based on a questionnaire, grade-point average, test scores, a personal statement of purpose, and an on-campus audition. Applicants who are unable to travel to UCLA have the option of submitting a video audition in place of the on-campus audition.

Transfer Students
Transfer applicants to the Global Jazz Studies major with 90 or more units must complete the following introductory courses as required prior to admission to UCLA: one to 12 units of studio Performance (24 units); and Music M50A-M50B. Entering transfer students with fewer than 15 units of prior music theory must take the Music Theory Assessment Examination. Each course must be completed with a grade of C or better.

The Major
Each course must be taken for a letter grade and be completed with a grade of C or better. Students must have an overall grade-point average of 2.0 or better. No more than eight units from upper-division tutorials (195-199) may be applied toward the degree.

Global Jazz Studies
Lower-Division Courses
19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery. May be repeated. P/NP or letter grading.

M25. Global Pop. (5) (Same as Ethnomusicology M25.) Lecture, four hours; discussion, one hour. Development of world music or world beat, including its meaning and importance to contemporary culture as well as its history and impact. P/NP or letter grading.

M35. Blues, Society, and American Culture. (5) (Same as Ethnomusicology M35.) Lecture, four hours; discussion, one hour. Sociocultural history and survey of blues music tradition from its roots in West Africa to its emergence in African American oral culture, with emphasis on philosophical underpinnings and social and political impact of blues and its influence on development of country, jazz, gospel, rhythm and blues, rock, hip-hop music, and other mediums. P/NP or letter grading.

M50A-M50B. Jazz in American Culture. (5-5) (Same as Ethnomusicology M50A-M50B.) Lecture, four hours; discussion, one hour. Course M50A is not required to M50B. Survey of development of jazz in American culture. Discussion of different compositional/technique approaches and challenges that distinguish different sub-styles of jazz from one another, as well as key historical figures that shaped development of jazz during its early years. Important historical social issues (segregation, Depression, World War II, Civil Rights Movement) that intersect with history of U.S. and jazz music. P/NP or letter grading. M50A. Late 19th Century through 1940s. M50B. 1940s to Present.

66. Global Jazz Studies Composition Studio. (2) Studio, one hour per week to be arranged with instructor; outside study, five hours. Limited to Global Jazz Studies majors. One-on-one composition lessons with assignments and compositions tailored to student progress and level of achievement. Lessons address various, cross-cultural concepts in harmonic, melodic, and rhythmic construction, orchestration, analyses of global jazz masterworks, form, texture, style, notation, ornamentation, improvisation, and performance feasibility. May be repeated for credit. P/NP or letter grading.

71A-71L. Instruction in Jazz Performance. (2 each) Studio, one hour of individual instruction. Limited to Global Jazz Studies majors. Knowledge of jazz repertoire, concepts, and techniques gained through private lessons on specified instrument and voice. Students meet weekly with instructor to demonstrate their performance skills and receive assessment of their progress in learning material. May be repeated for maximum of 12 units. Letter grading.

Upper-Division Courses
101. Cross-Cultural Perspectives in Jazz. (4) Lecture, four hours. Exploration of assimilation and redefinition of jazz from U.S. in various countries, with particular emphasis on cultural and social features that form basis for new jazz-ethnic musical blends. Letter grading.

M103. Creating Musical Community. (4) (Same as Ethnomusicology M103, Music M103, and Musicology M103.) Seminar, four hours; discussion, one hour. Limited to school of music majors. Faculty and students make music together in different modes. Students learn certain repertoire, refine it, and bring it to concert performance. Students critically engage musical literacies and notion of social contract that forms basis of musical notation. Drawing from American music folk game traditions, highlights complex history of this country and way in which entire body is used as resource when instruments are unavailable. Letter grading.

M109. Women in Jazz. (4) (Same as African American Studies M109, Ethnomusicology M109, and Gender Studies M109.) Lecture, four hours; discussion, one hour. Sociocultural history of women in jazz and allied musical traditions from 1880s to present. Survey of women vocalists, instrumentalists, composers/arrangers, and producers and their impact on development of jazz. P/NP or letter grading.

M110A-M110B. African American Musical Heritage. (5-5) (Formerly numbered M12A-M12B.) (Same as African American Studies M110A-M110B and Ethnomusicology M110A-M110B.) Lecture, four hours; discussion, one hour. Limited to M.A. level. P/NP or letter grading. M110A. Sociocultural history and survey of African American music covering Africa and its impact on America; music of 19th and 20th centuries; its influence on representation of blacks in film, television, and the other; religious music, including hymns, spirituals, and gospel; black music of Caribbean and Central and South America; and music of black Los Angeles. M110B. Sociocultural history and survey of African American music covering blues, pre-1947 jazz styles, rhythm ‘n’ blues, soul, funk, disco, hip-hop, and symbolic relationship between recording industry and effects of political movements on black popular music productions. Letter grading.

M111. Ellingtonia. (4) (Same as African American Studies M111 and Ethnomusicology M111.) Lecture, three hours. Music of Duke Ellington, his life, and far-reaching influence of his efforts. Ellington’s music, known as Ellingtonia, is one of largest and perhaps most important bodies of music ever produced in U.S. Covers many contributions of other artists who
worked with Ellington, such as composer Billy Strayhorn and musicians Johnny Hodges, Cooties Williams, and Mercer Ellington. P/NP or letter grading.

122A. Early Jazz to Swing Era, 122B. Bebop to Avant-garde, 122C. Jazz since 1970s.

125. Jazz Arranging and Orchestration. (4) Lecture, three hours. Limited to Global Jazz Studies majors. Study of specific instruments and their unique use and application in jazz (jazz notation and terminology, transposition, woodwind doublings, brass mutes, etc.). Analysis of different writing techniques and approaches that distinguish different sub-styles of jazz from one another. Assignments focus on writing for medium and large ensembles with final project of arrangement to be read by UCLA Jazz Orchestra. P/NP or letter grading.

125A-125B-125C. Jazz Styles and Analysis. (4–4–4) Lecture, four hours; outside study, eight hours. Limited to Global Jazz Studies majors. One-on-one composition lessons. Focus on technologically informed, 21st-century tendencies towards fluidity and hybridization of jazz genres and styles. Study of techniques with broad array of cultural hybridity. Students create new extended composition based on their extrapolations from series of analyses covered during quarter. May be repeated for credit. P/NP or letter grading.

171A-171L. Instruction in Advanced Jazz Performance. (2 each) Studio, one hour of individual instruction; outside study, seven hours. Limited to junior/senior Global Jazz Studies majors. Study of jazz repertoire and techniques for specific instruments and voice. Grades are assigned by studio instructor in fall and winter quarters and by jury examination in spring quarter. May be repeated for maximum of 12 units. Letter grading.

176A-176B-176C. Capstone Seminar. (3) Seminar, two hours; outside study, seven hours. Limited to junior/senior Global Jazz Studies majors. Individual intensive research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for maximum of 8 units. Individual contract required. Letter grading.

199. Directed Research in Global Jazz Studies. (2 to 4) Tutorial, to be arranged. Limited to junior/senior Global Jazz Studies majors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for maximum of 8 units. Individual contract required. Letter grading.

**GLOBAL STUDIES Interdepartmental Program**

**College of Letters and Science**

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115 Global Studies

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Program e-mail

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Michael F. Thies, PhD (Political Science)

Dominic F. Thomas, PhD (Comparative Literature, European Languages and Transcultural Studies)

**Overview**

The Global Studies Interdepartmental Program provides undergraduate students with a rigorous interdisciplinary education in the processes of globalization and their consequences. Housed in the UCLA International Institute, Global Studies offers a research-oriented undergraduate major leading to a Bachelor of Arts (BA) degree, as well as an undergraduate minor. The curriculum features three thematic pillars that capture the principal dimensions of the unprecedented depth and breadth of interconnectedness among nation-states, ethnic and religious groups, and individuals. Cultural and society courses concentrate on the tensions between local ways of life with deep historical, linguistic, ethnic, and religious roots; and today's pressures for transnational cultures and multiple identities, fueled by the communic-
sion of ideas and the movement of people all around the world. Governance and conflict courses focus on challenges to the nation-state from forms of governance above (regional and global forms of governance) and below (autonomy and secessionist movements); and from security threats beyond interstate warfare (ethnogenic conflict, terrorism, civil war). Markets and resources courses address the interactions among global, regional, national, and subnational economic processes over resources and market dynamics; their effects on different societies with respect to economic growth, poverty, inequality, the environment; and the interactions among market forces, political institutions, and public policy.

The curriculum draws on insights from disciplines across the humanities and social sciences to give students the theoretical and methodological skills and knowledge base necessary to understand this complex and rapidly changing world.

Undergraduate Major

Global Studies BA

Capstone Major

The Global Studies major is a designated capstone major. As students progress through the major, they move from a set of broad themes, theories, and perspectives to give students the theoretical and methodological skills and knowledge base necessary to understand this complex and rapidly changing world.

Learning Outcomes

The Global Studies major has the following learning outcomes:

- Critical thinking about basic political processes, institutions, and concepts as they operate in different national and cultural contexts
- Impartial evaluation of arguments
- Application of mathematical and logical reasoning to political processes
- Use and evaluation of statistical and other types of evidence in arguments
- Recognition of limits of quantitative and non-quantitative analysis
- Knowledge of diverse theories of politics acquired through critical engagement with texts, media, and contexts
- Location, evaluation, and use of information and scholarship to place political events in broader historical, cross-national, and theoretical contexts
- Employment of cultural, hermeneutical, normative, and historical approaches
- Written and oral arguments using appropriate evidence, with sensitivity to opposing perspectives, about significant political processes, events, and concepts

Entry to the Major

Admission

Admission to the Global Studies major is by application only and is highly competitive, with only a limited number of students admitted each year. To be eligible to apply, UCLA students must have completed all nonlanguage preparation for the major courses and one modern foreign language equivalent to level 3 by the end of the term in which they are applying. Any remaining language courses may be completed after students have been accepted to the major. Each preparation for the major course must be taken for a letter grade, and the UC grade-point average for all preparation courses must be a minimum of 3.25. In addition, students must have earned a grade of B or better in Global Studies 1.

The application period is once per year, and students must apply no later than the end of fall quarter of their junior year.

Meeting the above minimums does not guarantee admission to the program. Admission is on a competitive basis, using the above qualifications as minimum standards for consideration.

Pre-major

Incoming first-year and transfer students may be admitted as Global Studies pre-majors on acceptance to UCLA. Pre-major students must apply for the major at the end of fall quarter of their junior year; they are not automatically accepted into the major.

Transfer Students

Transfer applicants to the Global Studies pre-major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one modern world history course, one major world region languages and cultures course, one international politics course, one macroeconomics or microeconomics course, one statistics course, and demonstrated proficiency equivalent to level 3 at UCLA in one modern foreign language. Transfer students must apply for the major by the end of fall quarter of their junior year.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major

Required: Global Studies 1 with a grade of B or better; one methods course selected from Political Science 6, 6R, 30, Statistics 10, 12, or 13; demonstrated proficiency equivalent to level 6 at UCLA in one modern foreign language; and five additional courses as follows: (1) one culture and society course selected from Anthropology 3, 4, Comparative Literature 1C or 2CW, 1D or 2D, 4CW or 4DW, Ethnomusicology M25, Gender Studies 10, Geography 3, 6, History 2B, World Arts and Cultures 20, or 33; (2) one governance and conflict course selected from History 10B, 22, Political Science 10, 20, 50, 50R, or Sociology 1, and (3) one markets and resources course selected from Economics 1, 2, Environment 12, Clusters M1A, or Sociology 51. The remaining two courses, taken from two separate categories, may be selected from the three lists above. One course from the following list may be applied toward the culture and society category: Asian 70C, Asian American Studies 10B, Chicana/o and Central American Studies 10B, French 14, 14W, History 8A, 9E, International and Area Studies 31, 33, 50, Italian 42A, 42B, 46, Middle Eastern Studies M50CW, Russian 90A, 90B, 90BW, Spanish 42, or 44.

The Major

Required: Global Studies 102, 103, 104, and six elective courses, two from each of the following categories:

- Culture and Society—Anthropology 146, M148, Asian American Studies M130C, 170, M172A, M172C, Chicana/o and Central American Studies 120, 143, CM147, Comparative Literature 100, M148, English 130, 131, 133, 134, Film and Television 106C, 112, French 121, 142, Gender Studies 102, M147C, M162, Geography 141, 151, 175A, Global Studies 125, 140, Political Science M184A, Religion M107, Southeast Asian 157, Society and Genetics 134, Sociology 151, 152, 154, M162, 191F


Required Summer Global Learning Institute: After successful completion of two courses from Global Studies 102, 103, 104, students are expected to attend a summer Global Learning Institute at one of several locations around the world in which they enroll in Global Studies 110A and 110B.

Required Capstone: During their senior year, students must also take two capstone courses—Global Studies 191 and research/field experience practicum: International and Area Studies 195CE or Global Studies 199.

Honors Program

In addition to completing all courses required for the major, students must take courses 199A and 199B, in which they research and write an honors thesis.

Policies

Preparation for the Major

Courses must be completed with a grade-point average of 3.25 or better.
Honors Program

 Majors who have completed Global Studies 102, 103, 104, 191, and who have a 3.5 grade-point average (GPA) in all courses offered for the major are eligible to formally apply for the honors program.

 To receive honors at graduation, students must have at least a 3.5 GPA in courses applied toward the major (including 199A and 199B) and an overall GPA of 3.25. Highest honors may be granted at the discretion of the faculty sponsor. Students demonstrating exceptional ability on the senior thesis.

 Undergraduate Minor

 Global Studies Minor

 The Global Studies minor offers students a multidisciplinary curriculum in the humanities and social sciences through which they can explore the complex and multifaceted interconnections that shape the contemporary world. The minor is designed to complement and enrich studies in their major.

 Admmission

 To enter the minor, students must (1) be in good academic standing (minimum 2.0 grade-point average) and (2) have completed Global Studies 1 and one course in the following three categories: (a) culture and society—Anthropology 3, 4, Asian 70C, Asian American Studies 10, Chicana/o and Central American Studies 10B, Comparative Literature 1C or 2CW, 1D or 2D, 4CW or 4DW, Ethnomusicology M252, French 14, 14W, Gender Studies 10, Geography 3, 6, History 2B, 8A, International and Area Studies 31, Italian 42A, 42B, Middle Eastern Studies M50CW, Russian 90B, 90BW, Spanish 42, 44, World Arts and Cultures 20, or 33, (b) governance and conflict—History 10B, 22, Political Science 10, 20, 50, 50R, or Sociology 1, and (c) markets and resources—Economics 1, 2, Environment 12, Clusters M1A, or Sociology 51.

 The Minor


 After completing at least two courses from Global Studies 102, 103, 104, Global Studies minors are highly encouraged to participate in a summer Global Learning Institute at one of several locations around the world. The courses offered, Global Studies 110A and 110B, may be applied toward any two of the elective categories (culture and society, governance and conflict, and markets).

 Policies

 A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

 Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor.

 Successful completion of the minor is indicated on the transcript and diploma.

 Global Studies Lower-Division Courses

 1. Introduction to Globalization. (5) Lecture, three hours; discussion, one hour. Introduction to concept and history of globalization, and to political, economic, social, and environmental dimensions of global integration today. Topics include finance and trade, colonialism, Industrial Revolution, urbanization, immigration, and climate change, among others. P/NP or letter grading.

 10. International Diplomacy and Foreign Affairs. (2) Lecture, 15 hours; discussion, 15 hours. Limited to high school students participating in Model United Nations (UN) Summer Institute. One-week intensive summer course, including lectures in international relations and outside study. Development of position papers in simulation of United Nations and final presentation in respective UN committees. P/NP grading.

 110A. Globalization in Context. (5) Lecture, six hours. Requisite: course 100B. Corequisite: course 110B. Culture, economy, history, and politics of different locations around world and how they are affected by globalization. Field trips included to gain first-hand experience of these processes. Offered in summer only. P/NP or letter grading.


 112AD. Globalization in Context: Markets and Resources. (5) Lecture, six hours. Requisite: course 102. Corequisite: course 112BD. Examination of development of markets and businesses in globalized world. Field trips included to gain first-hand experience of these processes. Offered in summer only. P/NP or letter grading.


 113AD. Globalization in Context: Governance and Conflict. (5) Lecture, six hours. Requisite: course 103. Corequisite: course 113BD. History, politics, philosophy, and governance of global governance and how they are affected by globalization. Field trips included to gain first-hand experience of these processes. Offered in summer only. P/NP or letter grading.


 114AD. Globalization in Context: Culture and Society. (5) Lecture, six hours. Requisite: course 104. Corequisite: course 114AD. Culture, economy, history, and politics of race, gender, and religion and how they are affected by globalization. Field trips included to gain first-hand experience of these processes. Offered in summer only. P/NP or letter grading.

 114BD. Globalization in Context Seminar: World Culture and Society. (5) Seminar, six hours. Requisite: course 104. Corequisite: course 114AD. Individual research projects on different aspects of globalization process in locations around world, including racial and gender identities. Offered in summer only. P/NP or letter grading.
120. Introduction to International Business. (4) Lecture, three hours; discussion, one hour (when scheduled). Over last five decades, world has increasingly become a complex global marketplace for businesses and entrepreneurs. However, recent world events have demonstrated volatile nature of globalization and pitfalls that can also manifest for firms doing business in global setting. Students gain understanding of dynamic environment of international business, and how firms managers navigate complex world of international business to capitalize upon opportunities and mitigate against risks. P/NP or letter grading.

125. Los Angeles as Global City: Exporter and importer of Global Culture. (4) Lecture, three hours; discussion, one hour. Study of phenomenon of globalization through Los Angeles case. Focus on how city produces global culture, including filmed entertainment and culture of celebrity and food; how it absorbs cultural inputs from world over. Emphasis on interaction between export and import of global culture. City’s distinct cultural milieu influences nature of its cultural exports, but its viability as cultural capital depends on its ability to accommodate integration of diversity of cultures. Study creates immersive experience through films, guest speakers, and urban field trips. P/NP or letter grading.

140. Hollywood and America’s Global Image. (4) Lecture, three hours; discussion, one hour (when scheduled). Required: course 105. Hollywood movies and television shows are meant to unify global audiences by exporting stories and images that demonstrate our shared humanity. But they also reveal unpleasant truths about American attitudes towards foreign cultures as well as our own. Examination of critical aspects of Hollywood’s role in shaping America’s global image. Ques

145. Rethinking Global Capitalism: Race, Class, Gender, History. (4) Lecture, three hours; discussion, one hour (when scheduled). Required: course 105. Reconsideration of histories and geographies of global capitalism. Displacing industrial revolution from Britain out into colonial world, transatlantic slave trade, and attempted genocide of indigenous peoples in Americas; study of new map of global capitalism and new histories of globalization. Study covers capitalism; embodiment and gender; capitalism and environmental crisis; and new issues in digital capitalism. Gig economy. P/NP or letter grading.

160. Selected Topics in Global Studies. (4) Lecture, three hours; discussion, one hour (when scheduled). Examination of one or more topics related to global studies. May be repeated for credit with topic change. P/NP or letter grading.

M161. Special Topics in Global Studies and Public Policy. (4) (Same as Public Policy CM191G.) Seminar, three hours. Examination of one or more topics related to public policy and global studies. May be repeated for credit with topic change. P/NP or letter grading.

M177. Superfoods: Cultural and Global Perspectives. (4) (Same as Food Studies M177 and International Development Studies M177.) Seminar, four hours. Exploration of superfoods, which are nutrient rich foods considered beneficial for well-being, health, and longevity, as they are high in minerals, vitamins, and antioxidants. While superfoods have been part of cultures’ diets for centuries, in recent decades they have been researched in scientific and medical communities. Citizens globally have begun to increasingly demand and consume foods that are nutritious, organ

Graduate Course

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

385A. Teaching Assistant Pedagogy Seminar. (2) Seminar, two hours. Overview of evidence-based pedagogical theories, strategies, and best practices geared towards preparing first-time teaching assistants to teach at UCLA. Discussion, development, and implementation of pedagogical techniques to promote inclusive teaching and support student learning outcomes. S/U grading.

385B. Teaching as Research. (2) Seminar, 90 minutes. Required: course 496A or equivalent. Focus on teaching as research project. Suitable for grad student instructors designing courses from scratch and those modifying existing courses to teach. Culminating paper required. May be repeated for credit. S/U grading.

495A. Teaching Assistant Pedagogy Seminar. (2) Seminar, three hours. Introduction to evidence-based teaching practices. Strategy for creating effective learning environment. Development of graduate students.

495B. Collegium of University Teaching Fellows. (2) Seminar, 90 minutes. Required: course 495A or equivalent. Focus on teaching as research project. Suitable for grad student instructors designing courses from scratch and those modifying existing courses to teach. Culminating paper required. May be repeated for credit. S/U grading.

496A. Teaching Assistant Pedagogy Seminar. (2) Seminar, 90 minutes. Required: course 496A or equivalent. Focus on teaching as research project. Suitable for grad student instructors designing courses from scratch and those modifying existing courses to teach. Culminating paper required. May be repeated for credit. S/U grading.

496B. Teaching as Research. (2) Seminar, 90 minutes. Required: course 496A or equivalent. Focus on teaching as research project. Suitable for grad student instructors designing courses from scratch and those modifying existing courses to teach. Culminating paper required. May be repeated for credit. S/U grading.

496C. Implementing and Communicating Teaching as Research Project. (2 to 4) Tutorial, three to six hours. Development of research project. Culminating paper of 35 to 50 pages required. Individual contract required. Letter grading.

Graduate Education

130-205-3819
Overview

The Division of Graduate Education sponsors universitywide courses for the professional development of graduate students.

Graduate Student Professional Development

Graduate Courses

495A. Teaching Assistant Pedagogy Seminar. (2) Seminar, two hours. Overview of evidence-based pedagogical theories, strategies, and best practices geared towards preparing first-time teaching assistants to teach at UCLA. Discussion, development, and implementation of pedagogical techniques to promote inclusive teaching and support student learning outcomes. S/U grading.

496A. Teaching as Research. (2) Seminar, 90 minutes. Required: course 496A or equivalent. Focus on teaching as research project. Suitable for grad student instructors designing courses from scratch and those modifying existing courses to teach. Culminating paper required. May be repeated for credit. S/U grading.

496B. Teaching as Research. (2) Seminar, 90 minutes. Required: course 496A or equivalent. Focus on teaching as research project. Suitable for grad student instructors designing courses from scratch and those modifying existing courses to teach. Culminating paper required. May be repeated for credit. S/U grading.

496C. Implementing and Communicating Teaching as Research Project. (2 to 4) Tutorial, three to six hours. Development of research project. Culminating paper of 35 to 50 pages required. Individual contract required. Letter grading.
division students who may be new to field of inquiry and/or new to college-level research and writing. S/U grading.

497C. Approaches to Community-Engaged Teaching. (4) Formerly numbered 497CE. Seminar, two hours. Suitable for graduate students in any discipline. Introduction to best practices for community-engaged pedagogy and experiential learning, with emphasis on strategies for collaborating effectively with diverse communities of Los Angeles. S/U grading.

497R. Integrating Writing and Research in Teaching Practice. (4) Formerly numbered 497R. Seminar, two hours. Introduction to strategies for integrating writing and research in instruction, emphasizing research and information literacy skills instruction and UCLA’s context. This course is suited Designed for teaching assistants from all departments, and does not require any prior knowledge or teaching experience. S/U grading.

HEALTH POLICY AND MANAGEMENT
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Linda Rosenstock, MD, MPH
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Overview
The field of health policy and management examines the organization and financing of various health sector and wider social system activities to prevent and treat disease. This includes programs in both the public and private sectors at all levels—local, state, and federal. Faculty members come from such diverse fields as economics, management, law, statistics, operations research, planning, medicine, history, sociology, and political science. These diverse disciplines are harmonized by their devotion to solving problems—through quantitative, qualitative, and mixed method analyses—in the financing and delivery of health policy and management, with a focus on populations rather than individual patients.

Graduate Study
The Department of Health Policy and Management offers both practice-oriented and research-oriented graduate programs. The primary professional degree, the Master of Public...
Health Policy and Management

Executive Master of Public Health

Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Majors

Executive Master of Public Health

Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Health Policy and Management MS, PhD

Students have the opportunity to collaborate with the department’s seven existing centers by actively engaging in progressive health services research across a wide breadth of topics, examining issues and finding solutions to critical health care problems locally, nationally, and globally. Graduates pursue careers in universities, as well as in public and private agencies involved in health services research and health policy analysis.

Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Master of Healthcare Administration

Students have the opportunity to collaborate with the department’s seven existing centers by actively engaging in progressive health services research across a wide breadth of topics, examining issues and finding solutions to critical health care problems locally, nationally, and globally. Graduates pursue careers in universities, as well as in public and private agencies involved in health services research and health policy analysis.

Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Courses

400. Field Studies. (4) Fieldwork, to be arranged. Culmination of fieldwork process that takes approximately one year from internship search process, through actual field placement, to this integrative course. Deliberate consideration and reflection on relationship between summer practicum and principles and competencies of health-care management and policy learned during academic year. Students complete professional management or policy-related consulting report based on organizational problem or health policy issue on which students focused during summer. S/U or letter grading.


402. Management and Organizational Behavior in Health Systems. (4) Lecture, three hours; discussion, one hour. Application of contemporary management and organization behavioral theory to systems that provide personal health care services. Environmental characteristics, decision-making, structure and culture, and processes of health services organizations. Letter grading.

403. Health-Care Information Systems and Technology. (4) Lecture, three hours; discussion, one hour. Provides strong foundation in health information technology (HIT) for those working in health care, with emphasis on development of knowledge and skill to plan, manage, and implement HIT systems in health-care delivery organizations with clinical and business partners and evolving HIT spaces. Background and evolution of HIT; how it is planned, implemented, and managed; and how it influences health-care delivery organizations, external research organizations, regulatory organizations, providers, and patients/consumers. Fundamentals of technology, electronic medical records (EMR), electronic health records (EHR), personal health records (PHR), meaningful use, interoperability, and health information exchanges (HIE). Letter grading.

404. Health-Care Strategy. (4) Lecture, three hours; discussion, one hour. Conceptual, analytical, and technical aspects of environmental assessment and strategy formulation in health delivery organizations, biopharma, and medical technology. Special attention to structure and dynamics of competitive markets, corporate-level strategic planning and marketing, managerial ethics and values, organizational creativity and innovation. Letter grading.

405. Leadership and Ethics. (4) Lecture, three hours; discussion, one hour. Preparation: completion of immersion course 596. Examination of leaders and leadership in health care and other organizations to provide broad introduction to leadership behaviors, characteristics, and functions of organizational leaders. Relationship and importance of vision, values, change, strategy, and communication, identifying characteristics of successful leaders. Students evaluate their own leadership style and identify opportunities to further develop their leadership abilities. Letter grading.

406. Health-Care Marketing. (4) Lecture, three hours; discussion, one hour. Introduction to concepts of health-care marketing. Exploration of principles of market-driven decision-making process. Examination of development of key elements in annual marketing process and of consumer, competitor, company analysis, market segmentation, and target markets. Letter grading.

407. Digital Health Transformation. (4) Lecture, three hours; activity, one hour. Prepares students to lead digital health transformation by deepening knowledge of health technologies driving innovative health-care delivery. Ten learning modules and leadership competencies required to advance and accelerate digital health transformation in one’s organization, whether it is startup or large, mature health system. Letter grading.


411. Microeconomic Theory for Health Sector. (4) Lecture, three hours; discussion, one hour. Microeconomic aspects of health-care system, including health-care economics and financial management, demand for health care, and provider behavior. Letter grading.

412. Statistics for Health Management Decision-Making. (4) Lecture, three hours; discussion, one hour. Sampling situations, with special attention to those occurring in biological and social sciences. Topics include distributions, tests of hypotheses, estimation, types of errors, statistical confidence levels, and sample size. Letter grading.

413. Health Care Operations Management. (4) Lecture, three hours; discussion, one hour. Development of skills in analyzing and improving health care systems and processes by integrating systems analysis, quality management, operations research techniques, exploratory data analytics, and data visualization. Emphasis on use of organizational data, especially time-stamped data, to study processes and outcomes of care, particularly as it relates to flow analysis and improving flow. Hands-on use of computer-based modeling tools, including spreadsheets and spreadsheet add-ins focus on formulating, designing, and constructing models; drawing conclusions from model results; and translating results into written end-user reports to support process improvement and quality improvement efforts. Letter grading.

414. Health Care Financial Accounting. (4) Lecture, three hours; discussion, one hour. Examination of purpose and methods of financial accounting (including for profit, not for profit, and governmental), function and organization of financial department, and special industry characteristics affecting financial management (to include third party payers, price or rate-setting and cost-shifting, taxation and health care incentives, and emerging health care organizations). Letter grading.

415. Health Care Financial Management. (4) Lecture, three hours; discussion, one hour. Concepts of financial management and managerial accounting as applied within health care industry. Builds managerial financial decision-making skills and key analytical methods used in applications of health care financial management. Students develop understanding and respond to financial recommendations of advisers, lenders, investors, and other stakeholders by applying concepts such as time value of money, financing approaches, capital planning, and budgeting. Letter grading.


417. Health Care Analytics. (4) Lecture, three hours; discussion, one hour. Exploration of data sources and uses in health care, e.g., electronic medical records, social media, wireless biosensors, system and facility data. Review of hands-on techniques including data management, development of indexes and metrics, choosing and implementing...
Health Policy and Management

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminate many paths of discovery at UCLA. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial, to be arranged. Students must have faculty mentors on their research in area related to the student. May be repeated for credit. S/U and letter grading.

Upper-Division Courses

100. Health Care Systems and Health Policy. (4) Lecture; four hours; discussion, one hour. Limited to nonmajors. Not open for credit to students with credit for course 120. Structure and function of U.S. health care system, health care policy, and issues and forces shaping its future. P/NP or letter grading.


120. Health Care Systems: Structures, Functions, and Policies. (5) Lecture; four hours; discussion, one hour. Requisite: Public Health 50B. Limited to Public Health majors. Not open for credit to students with credit for course 100. Introduction to health policy and management focusing on basic concepts underlying health care organization, finance, and policy. Topics include development of U.S. health care system, comparisons to international health care systems, trends in health care spending, role of public and private insur-

197. Individual Studies in Health Services. (2 to 4) Tutorial, four hours. Limited to juniors/seniors. Individual intensive study, with scheduled meetings between faculty member and student. May be repeated for credit. Individual contract required. P/NP or letter grading.

198SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced prerequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin prepa-

198SB. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced prerequisite: course 188SA. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

198SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced prerequisite: course 188SB. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE 88S course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

198SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced prerequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin prepa-

198SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced prerequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

198SB. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced prerequisite: course 188SA. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE 88S course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

198SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced prerequisite: course 188SB. Limited to junior/senior USIE facilitators. On-campus study in regularly scheduled meetings with faculty mentor while facilitating USIE 88S course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

Graduate Courses

200A-200B. Health Systems Organization and Financing. (4) Lecture, three hours; discussion, one hour. Limitd to graduate health services students. In-depth analysis of health services systems in U.S., using relevant theories, concepts, and models. S/U or letter grading.

M203. Microeconomic Analysis for Public Health and Policy. (4) (Same as Public Policy M203A.) Lecture, two hours; laboratory, two hours. Overview of statistical and research methods for health services research. Preparation for consecutive course in statistics and leading independent research projects. Students learn to develop analytical skills involving data collection, probability, advanced statistics and how they can be applied to public health. S/U or letter grading.

M203A. Microeconomic Analysis for Public Health and Policy. (4) (Same as Public Policy M203A.) Lecture, four hours. Requisite: Mathematics 3A or 3B or 31A. Course M203A is requisite to M203B. Basic concepts of microeconomics, with emphasis on their application to actual situations and their use in problem solving. Extensive use of differential calculus. Letter grading.

M203B. Microeconomic Analysis for Public Health and Policy. (4) (Same as Public Policy M203B.) Lecture, four hours. Requisite: completion of one course from Mathematics 3A, 3B, or 31A. Basic concepts of microeconomics, with emphasis on their application to actual situations and their use in problem solving and focus on theories of firms and markets. Extensive use of differential calculus. Letter grading.

M204A-M204B-M204C. Seminars: Pharmaceutical Economics and Policy. (1–1–2) (Same as Economics M204L-M204M-M204N.) Seminar, three hours every other week. Topics include determinants of drug availability, and patient access to pharmaceuticals. Letter grading.

M205. Pharmaceutical Policy. (4) (Formerly numbered 205.) (Same as Public Policy M265.) Lecture, three hours. Policy issues pertaining to pharmaceutical sector. Topics include determinants of expenditures on drugs, price setting in industry, health insurance coverage for pharmaceuticals, and research and development process. Letter grading.

M210. Topics in Theoretical Epidemiology. (4) (Same as Epidemiology M203.) Lecture, three hours. Emphasis on methods that help to understand how systems operate and how to intervene on them. Exploration of how to characterize human-centered problems that arise, and how to handle complexity as core design and development challenge. Examination of different traditions of studying and modeling (repre-

191. Directed Individual Study or Research. (1 to 4) Tutorial, to be arranged. Independent study with faculty mentor required. May not be repeated. S/U and letter grading.

418. Health Reform: Policy and Implementation. (4) Lecture, four hours. Examination of politics of health policy process and how problems are considered for governmental action, how solutions are identified, and how political forces act on them. Emphasis on understanding how public policy is made, and how to influence process and how to un-
derstand formulation of policy in response to problems and political will of leaders. Covers how health policy is developed, adopted, and implemented; political, institutional, economic, social, and other factors that influence and shape process; and how health care managers can be engaged in policymaking or interpreting policy decisions they must comply with as health care leaders. Letter grading.

140. Foundations of Maternal and Child Health. (4) Seminar, four hours. Introduction to field of maternal and child health, with focus on major issues affecting health and well-being of children and families over life course including prevention of problems and support-

M168. Healthcare for American Indians. (4) (Same as American Indian Studies CM168.) Lecture, two hours; discussion, one hour. Identification of tradi-
tional health beliefs, health practices, and healthcare systems of American Indian tribes to understand role of U.S. government in healthcare services for Indian people. Description of health problems that have af-
fected American Indian people and definition of temporary health issues and measures taken to raise health status of American Indian people. Letter grading.

188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced prerequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin prepa-
ration of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SB. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced prerequisite: course 188SA. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE 88S course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced prerequisite: course 188SB. Limited to junior/senior USIE facilitators. On-campus study in regularly scheduled meetings with faculty mentor while facilitating USIE 88S course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

197. Individual Studies in Health Services. (2 to 4) Tutorial, four hours. Limited to juniors/seniors. Individual intensive study, with scheduled meetings between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter re-
quired. May be repeated for credit. Individual contract required. P/NP or letter grading.

199. Student Research Program. (1 to 2) Tutorial, to be arranged. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.
(QI) techniques such as performance measurement, rapid cycle testing, breakthrough series, and interorganizational collaboration benefit quality and productivity. Letter grading.

215B. Applied Methods for Improvement/Implementation Science. (4) Lecture, four hours. Planning and management of improvement programs in current work of students and future roles as change agents and leaders in healthcare systems. Training in process and analytic methods for applying improvement science in clinical settings and health systems. Compilation of improvement projects that demonstrate student competence in improvement science. Emphasis on case studies and applications so students gain skills in improvement project design and implementation. Analyses of cases, individual improvement projects, and student to allow students to apply and implement knowledge to organizational examples. Letter grading.


217. Evidence-Based Medicine and Organizational Change. (4) Lecture, three hours. Requisites: courses 220A, 220B, or 225A for graduate students. Emphasis on graduate students in public health or other health sciences disciplines. Participation of students in critical review and discussion of selected papers dealing with course topics, including clinical trials, meta-analysis, small and large area variations in care, and development and implementation of clinical guidelines. Emphasis on implications for practice and policy. Letter grading.

221. Tobacco: Prevention, Use, and Public Policy. (4) Lecture, four hours. Designed for juniors/seniors and graduate students. Study of tobacco use and its health consequences, including interplay of historical, biological, social/cultural, and economic forces with knowledge, attitudes, and behavior choices of individuals. Introduction to prevention interventions, cessation interventions, anti-tobacco efforts in U.S., and international trends in tobacco use. Current and scheduled with course C121. Letter grading.

222A-225B. Health Services Research Design. (6-6) Lecture, four hours; laboratory, two hours. Limited to departmental MS and PhD students. Letter grading.

225A. Introduction to scope of health services research, conceptualization and design of health services research, choice and assessment of measures for such research, and methods for studies involving direct observation, survey, and controlled experiments. Preparation for graduate students in public health or other health sciences disciplines. Participation of students in critical review and discussion of selected papers dealing with course topics, including clinical trials, meta-analysis, small and large area variations in care, and development and implementation of clinical guidelines. Emphasis on implications for practice and policy. Letter grading.

225B. Requisite: course 225A. Development of conceptual models for health services research, identification and use of secondary data sources, study design, and its operationalization through regression models.

225C. Research Methods for Improvement/Implementation Science. (4) Lecture, four hours. Enforced requisites: courses 221A or 215B. Design and implementation of studies of dynamic interventions, including improvement initiatives and pragmatic clinical trials. Focus on research methods for design and implementation in clinical settings (including community-based settings) and health systems. Compilation of improvement research projects that demonstrate student competence in design and implementation. Fundamentals in research design and methods for conducting rigorous inferential evaluation in real world of implementation science, with emphasis on critical analysis of results from design and implementation studies involving dynamic testing. Emphasis on case studies and applications so students gain skills in design and implementation. Letter grading.

226A-226B. Readings in Health Services Research. (2-2) Seminar, two hours. Limited to departmental MS and PhD students. Introduction to research literature in health services research, including literature on key conceptual models, classic empirical studies, and current research illustrating cutting-edge methods or findings. In Progress (226A) and S/U (226B) grading.

227A. Special Topics in Health Services: Seminar Series. (2-4) Formerly numbered 227B. Seminar, two hours. Designed for doctoral students. Presentation of proposed or ongoing research projects by faculty members and students, with discussion to determine methods, results, and implications for future work. S/U or letter grading.

227B. Special Topics in Health Services: Current Research Issues. (2) Formerly numbered 227A. Seminar, two hours. Designed for doctoral students. Review of articles from selected journals are selected as best published during previous year. Analysis of articles to determine contribution to theory, methods, and/or implications for management or policy in health services organizations. Current research illustrated. May be repeated for credit with topic change. Letter grading.

228. Introduction to Mixed Methods Research. (4) Same as Community Health Sciences M228. Seminar, three hours; discussion, one hour. Limited to graduate students. Highly recommended: courses 225A and 225B, or completion of coursework in basic research design and methods. Introduction to mixed methods research and its application to public health research. Equips students with skills to critique mixed method research designs and to design mixed methods research for investigation for health issues of interest. Study of different mixed methods research designs commonly used in public health and health services research, including feasibility studies, convergent parallel design, sequential mixed methods, and multiple strategies to evaluate public health. Letter grading.


231. History of Public Health. (4) Discussion, three hours. Designed for doctoral students. Emphasis on topics which illuminate current issues in public health policy. Discussion of historical perspectives on health-care, community health, and environmental health reformation movements, public health activities, childbirth, and AIDS. S/U or letter grading.

232. Leadership Capstone Seminar. (4) Seminar, four hours. Preparation: completion of summer internship requirement. Designed for graduate students completing their master’s training in health management and health policy. Examination of leaders and leadership in healthcare and other organizations to provide introduction to literature on skills, behaviors, and characteristics of organizational leaders. Relationship and importance of vision, values, change, and leadership in current health care environment. Characteristics of successful leaders. Students evaluate their own leadership style and identify opportunities to further develop their leadership abilities. Letter grading.


234. Health Services Organization and Management Theory. (4) Lecture, two hours; discussion, two hours. Preparation: two upper-division social sciences courses. Application of contemporary organization and management theories to applications in health services organizations. Social, political, and economic factors that influence health of populations and defined subgroups. Letter grading.

235. Law, Social Change, and Health Service Policy. (4) Lecture, four hours. Preparation: two upper-division political science or sociology courses. Requisite: course 100. Legal issues affecting policy formulation for environmental, preventive, and curative health service programs. S/U or letter grading.

M236. Microeconomic Theory of Health Sector. (4) Same as Public Policy M236B. Lecture, four hours; discussion, two hours. Designed for doctoral students. Emphasis on health economics, microeconomics, Microeconomic aspects of health care system, including health manpower substitution, choice of efficient methods of treatment, market efficiencies, and competition. S/U or letter grading.

237C. Issues in Health Services Methodologies. (6) Lecture, four hours; discussion, two hours. Requisites: courses 237A, 237B, Biostatistics 200A, 200B (or 201). Designed for doctoral students. Intended to train students in statistical and economic methods used in health services research, with focus on practical application of advanced regression models. Letter grading.

239A. Special Topics in Health Services: Introduction to Decision Analysis and Cost-Effectiveness Analysis. (4) Lecture, four hours. Requisite: course 200A, 200B, or M233. Techniques to assess broad spectrum of medical technologies: therapeutic and diagnostic tests and procedures, clinical practice patterns, etc. Emphasis on health economic and cost-effectiveness analysis. Demonstration of how decision analysis provides basic framework for conducting various economic evaluations. May be repeated for credit with topic change.

239B. Special Topics in Health Services: Advanced Topics in Decision Analysis and Cost-Effectiveness Analysis. (4) Lecture, four hours. Introduction to global health, from health policy and management perspective. Examination of institutions, from global to local, through lenses including governance, financing, history, and agenda-setting. Discussion of major topics in global health systems, such as human resources and health IT. Through series of short assignments, students will develop a culminating concept paper that examines these many dimensions of single topic in global health. S/U or letter grading.

240. Global Health Institutions, Policies, and Systems. (4) Lecture, four hours. Introduction to global health, from health policy and management perspective. Examination of institutions, from global to local, through lenses including governance, financing, history, and agenda-setting. Discussion of major topics in global health systems, such as human resources and health IT. Through series of short assignments, students will develop a culminating concept paper that examines these many dimensions of single topic in global health. S/U or letter grading.

241. Economics of Health Policy. (4) Lecture, four hours. Requisite: course 236 or doctoral standing. Second-year graduate students. Emphasis on health policy applications, designed to provide more nuanced view of health economics than does course M236. Provides more training for master’s students interested in policy, as well as material and insights for doctoral students who may find it useful in thinking about dissertation topics. Emphasis on special characteristics of health and healthcare and how these characteristics can result in unique policy and various policy tools that can be used to deal with these failures. Because U.S. is only developed country that has traditionally relied on private insurance, course goes into more detail on that topic. Alternative conceptual models to traditional market one, discussion of proposed U.S. reforms, and examination of systems in selected other countries. Letter grading.

M242. Determinants of Health. (4) Same as Community Health Sciences M242. Lecture, three hours; discussion, one hour. Designed for graduate students. Critical analysis of models for what determines health and disease, both for health factors for environmental, genetic, health system, and other factors that influence health of populations and defined subgroups. Letter grading.

243. Population Health Approach to Autism Spectrum Disorder. (4) Lecture, three hours. Overview of impact that Autism Spectrum Disorder has on individuals, families, and communities, including access to
services, ongoing therapies, and adult vocational and residential placement. Covers opportunities for re-
structure and national policy. S/U or letter grading.

244. Telehealth and Technology. (4) Lecture, four hours. Preparation: working knowledge of Excel, PowerPoint, Internet, and smartphone devices. Connects multiple aspects of Telehealth and how to deploy them in health-care operations setting. Exploration of new de-

cives/technologies in wireless/telemedicine, delivery modalities, and user experience/Interface (UK/

design. Study teaches ways to apply new technology to facilitate efficient health-care business oper-

tions. Study of Telehealth in critical transport. Strengthen understanding of perils, challenges, and op-

mized data visualization for decision making. S/U or letter grading.

M248. Primary Health Care. (4) Same as Community

Health Sciences M248.) Lecture, four hours. Strongly recommended requisite: Public Health 200A, 200B. Recommended requisite: course 240 or Community Health Sciences 200. Primary Health care (PHC) is considered to be foundation of all health sys-
tems and should be able to resolve 80 percent or more of population’s health problems. Overview of organi-

zation, structure, and functions of primary health care with emphasis on course content and delivery. Letter grading.

M249. Advanced Research Topics in Health Policy and Management. (2 to 4) Seminar, three hours; outside study, one hour. Re-

designed for graduate students. Multidisciplinary intro-

duction to graduate level to epidemiology, physiology, and current state of preventive and therapeutic inter-

ventions for obesity in adults and children, including public health policy approaches to healthy nutrition and physical activity promotion. S/U or letter grading.

259. Smoking, Drinking, Shooting, and Driving: Understanding Public Health Policy in U.S. (4) (Same as Community Health Sciences M259.) Lec-
ture, two hours; discussion, two hours. Recommended requisite: course 286. Overview of essential themes, practices, and impact of public health policies in U.S. with emphasis on state and local governments. Students develop skills in public health policy research (laws, regula-
tions, and programs) and in critically analyzing evidence for different approaches currently used to address some of main causes of death and disability in U.S. including tobacco, alcohol, firearms, food, and work. Key areas include exposure to promising tools and approaches, and pitfall identification. Students learn comparative policy methods, analyze area of particular interest, and study what approaches and countries have taken in the past and im-

pact of these approaches. S/U or letter grading.

260. World Health. (4) Lecture, two hours. Designed for graduate students. Overview of world health, with emphasis on healthcare systems, health inequities, and major public health problems. Students learn comparative policy methods, analyze area of particular interest, and study what approaches and countries have taken in the past and impact of these approaches. S/U or letter grading.

261. Political Science: Health Policy and Health Care. (4) (Same as Community Health Sciences M260.) Lecture, four hours. Requisites: courses 200A, 200B. Limited to second-year graduate students. Overview of political science of implementing innovations and evidence-based approaches in real-world practice settings. In past two decades there have been four respi-

mendations: methods for public health research, designing surveys, and analysis of current topics in health policy and public health management, and Discussion of recent research and liter-

ature in research specialty of faculty member teaching course. May be repeated for credit with topic change. S/U or letter grading.

M274. Medicare Reform. (4) (Same as Public Policy M267.) Lecture, three hours; outside study, nine hours. Designed for graduate students. Analytical and mana-
gerial skills learned earlier to be used to analyze prob-

erms with existing Medicare program and to develop specific options for reforming features of program to accommodate coming pressures generated by retire-

ment of baby-boom generation. Letter grading.

275. Health Status and Health Behaviors of Racial and Ethnic Minorities. (4) Same as Psychology M274.) Lecture, two hours; discussion, one hour. Limited to graduate students. Overview of physical and mental health behaviors and status of major racial/ethnic groups in U.S. Where appropriate, discus-

sion of international issues as well. S/U or letter grading.

280. Health Reform: Policy, Research, and Imple-
mentation Issues. (4) Seminar, three hours. Requi-
sites: courses 200A, 200B. Limited to second-year MPH and doctoral students. Analysis of components of major federal healthcare reform legislative initiative to identify important policy, research, and implementa-
tion issues. Students apply multiple research methods to analyze how and why this legislation was constructed and how it passed Congress. Con-

duction of policy analyses of selected components through completion of written assignments. Examina-
tion of respective roles of federal and state govern-

ment in implementing and administering various com-
ponents. Identification of significant implementation challenges, gaps, and state and federal actions and levels and development of possible strategies for ad-

dressing those challenges. Letter grading.

281. Policy Making amid Health, Economic, and So-
cial Disparities. (4) Seminar, four hours. Preparation:

one year of graduate course-

work. In past two decades there have been four respi-

ratory pandemics. While COVID-19 led to most devas-
tating and economic consequences for healthcare, this

resented is not unique. Climate change and environ-

mental degradation, increasing encroachment on an-

imal habitats are together increasing rate of emerging infectious disease outbreaks. In recent decades pandemics have highlighted and been worsened by underlying health, social, and economic inequalities. Focus on what can be done to address underlying inequalities, as well as what can be done to improve response to simultaneous health, economic, and social crises. Stu-

dents learn comparative policy methods, analyze area of particular interest, and study what approaches and countries have taken in the past and im-

pact of these approaches. S/U or letter grading.

284. Social Policy and Health: Case for Gender. (4) Lecture, four hours. Preparation: completion of core MPH curriculum. Masters students in other degree programs should have completed their core require-

ments. Doctoral students should have completed at least one year of doctoral coursework. Focus on rela-

tionships among gender inequality, restrictive gender norms, and health. Examination of evidence pulled to-

tgether by World Health Organization (WHO) Commission on social determinants of health and others on how gender inequality and restrictive gender norms impact health across sexes and genders. Examination of evidence of evidence on extent of gender inequality in other so-

cial determinants of health globally including educa-

tion, work, and poverty. Focus on policies to improve health. Discussion of examples of pro-

matically approaches to inequalities in education, work, family, and other spheres. Students have opportunity to dive deeper into area of choice. S/U or letter grading.

M285. Ethical Theory and Applications in Public Health. (4) (Same as Community Health Sciences M285.) Lecture, four hours. Requisites: courses 200A, 200B. Introduction to ethical theories and crit-

cal ethical issues pertaining to healthcare policy and healthcare management. Research, writing, and dis-

ussion on variety of topics related to health and health care. Topics include: health care delivery, ethical and administrative challenges at federal and state sites; and systems thinking and improving student sensitivity to needs of patients, coworkers, and fiduciary share-

holders. How ethics are foundation of leadership. Letter grading.

286. American Political Institutions and Health Poli-

cy. (4) Lecture, three hours; discussion, one hour. To effectively participate in policy process as analyst, pol-

icymaker, advocate, or citizen, it is necessary to un-

derstand institutional and political within which policy is made. Introduction to federal and state policy-

making, with focus on health policy. Discussion of federalism and constitutionalism. Examination of stake-

holders, public interest groups, and issue space for health policy. Structure and process of political institutions at federal level, Congress, Presi-

dent, executive agencies, courts, and administrative law. State responsibilities and federal functions. How analysis enters policy process with examination of roles of federal analytic agencies and private re-

search and advocacy groups. Letter grading.

M297. Politics of Health Policy. (4) (Same as Com-

munity Health Sciences M297 and Public Policy M297.) Lecture, three hours; discussion, one hour. Ex-

amination of politics of health policy process through analysis and evaluation of public opinion, social pro-

tection, pandemic preparedness, and response, pre-

ventive health services for women, and racial and in-

come inequality and health. Examination of framework for assessing evidence-based policy making and ef-


fants of political structure and current political division, including efforts such as to repeal and dismantle Affordable Care Act. Letter grading.

288. Role and Impact of Technology on Health Services, (4) Lecture, four hours. Examination of role and impact of technology on health services in the U.S. from the point of view of system itself. Exploration of various types of technologies for their policy, economic, and organizational impacts on health care delivery. Letter grading.

289. Healthcare Disparities, (4) Seminar, three hours. Limited to graduate students. Exploration of what constitutes and explains disparity in healthcare. Emphasis on understanding history of disparities in U.S. to understand the root causes of disparities, and on evaluating effectiveness of ongoing strategies to eliminate them, such as increasing insurance coverage and delivery of culturally competent healthcare. Examination of societal perspective on healthcare and evaluation and expansion on these models. Letter grading.

M290. Evolving Paradigms of Prevention: Interventions in Early Childhood, (4) (Same as Community Health Sciences M237.) Seminar, three hours; fieldwork, one hour. Designed for graduate students. Introduction to use of early childhood interventions as means of preventing adverse health and developmental outcomes. Concepts of developmental vulnerability, approaches to assessment, models of service delivery, evaluation and cost-benefit issues, funding, and other policy issues. Letter grading.

375. Teaching Professional Practicum, (1-4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.


401. Public Health Informatics, (4) Lecture, three hours. Preparation: general familiarity and understanding of basic information technologies. Recommended prerequisite: course 251. Introduction to field of public health informatics and examination of impact of information technology on public health care delivery, from systems conceptualization and design to project planning and development to system implementation and use. Letter grading.


M411. Issues in Cancer Prevention and Control, (4) (Same as Community Health Sciences M411.) Lecture, four hours. Designed for juniors/seniors and graduate students. Introduction to causes and characteristics of cancer epidemic, cancer control goals for nation, and interventions designed to encourage smoking cessation, cancer screening, and other dietary, psychosocial, and lifestyle changes. Letter grading.

415. Organizational Analysis, (4) Seminar, four hours. Introduction to important questions and perspectives relevant to understanding organizational behavior and change in healthcare and public health environments. Active paradigms in organizational theory, particularly perspectives important for understanding delivery system reform. Focus on empirical research to clarify how important organizational constructs have been operationalized and to highlight methodology-related challenges of studying organizations in healthcare/public health. Letter grading.

M420. Children with Special Healthcare Needs: Systems Perspective, (4) (Same as Community Health Sciences M420 and Social Welfare M290L.) Lecture, three hours; fieldwork, one hour. Examination and evaluation of principles, policies, programs, and practices that have evolved to identify, assess, and meet special needs of infants, children, and adolescents with developmental disabilities or chronic illness and their families. Letter grading.


423. Advanced Evaluation Theory and Methods for Health Services, (4) Lecture, four hours. Designed for dispenser of practitioners. Familiarity with current theoretical concepts in evaluation to gain skills in integrating theory into program implementation and evaluation design. Development of student ability to apply various evaluation methodologies most appropriate to variety of settings both within and outside health care and public health, and consideration of advantages and disadvantages of potential design. Examination of shift in field of evaluation over past decade from principal focus on program efficacy (i.e., internal validity) to more balanced approach considering efficacy in content of feasibility, reach, cost, and sustainability (i.e., external validity) to more balanced approach considering efficacy in content of feasibility, reach, cost, and sustainability (i.e., external validity). Letter grading.


M428. Child and Family Health Program Community Leadership Seminar, (2) (Same as Community Health Sciences M428.) Seminar, two hours. Designed for graduate students. Examination of characteristics of community-based organizations (CBOs) and role leadership in decision-making process involved in major issues facing maternal and child health in Los Angeles County. Focus on specific leadership competencies and management skills needed to facilitate organizational change, and underscore community leadership concepts demonstrated by those CBOs. S/U or letter grading.


431. Organizational Behavior and Human Resources in Healthcare Organizations, (4) Lecture, four hours. Managerial skills and behaviors applied to components of organizations at several levels: individual, interpersonal, group, intergroup, and system. Core human resources skills required by managers. Unique features organizations face as stressed as applications are presented. Letter grading.


M434. Building Advocacy Skills: Reproductive Health Focus, (4) (Same as Community Health Sciences M430.) Seminar, three hours. Recommended prerequisite: one prior health policy course such as Community Health Sciences 230. Designed for School of Public Health graduate and doctoral students. Skills-building course to develop competency in assessing, developing, and implementing advocacy strategies for reproductive health initiatives. Introduction to legislative and community advocacy initiatives and to policymaking process, including policy analysis and development. Disciplines necessary for legislative advocacy. Identification of advocacy goals and objectives, development of advocacy plan, coalition building, organizational capacity building, media relations, and message development for various audiences. Students develop a range of former and current reproductive health advocacy campaigns. Letter grading.

435. Innovations and Current Trends in Ambulatory Care, (4) Lecture, three hours. Requisites: courses 200A, 200B. Examination of U.S. ambulatory care delivery system, with focus on more recent trends that are highlighted under Patient Protection and Affordable Care Act of 2010. Examination of relative delivery system infrastructure, challenges, financing and quality of care, role of healthcare reform in shaping future of ambulatory care, concepts of primary care/disease management, accountable care organizations, and accountable care organizations, measurement, implementation, and impact of these models. Letter grading.


438. Issues and Problems of Local Health Administration, (4) Lecture, three hours. Preparation: one health services course. Requisites: course 100, Epidemiology 100. Overview of issues currently faced by local health departments, including providing public health programs during fiscal constraint, quality improvement, interagency relationships and partnerships, and political and public interactions. Letter grading.

439. Data Software for Public Health Professionals, (4) Lecture, two hours; activity, one hour. Development of software skills around data analytics (e.g., Excel), including use of formulas and functions, formatting and manipulating datasets, developing visualizations including charts and tables, using lookup and data base functions, and implementing basic analytic models. Letter grading.

440A. Healthcare Information Systems and Technology, (4) Lecture, four hours. Preparation: completion of summer internship. Provides strong foundation in health information technology (HIT) for those working in healthcare with emphasis on development of knowledge and skill to plan, manage, and implement HIT systems in healthcare delivery organizations with clinical and business partners and evolving HIT spaces. Background and evolution of HIT; how it is planned, implemented, and managed; and how it can be productively used by healthcare delivery organizations to catalyze innovation and optimize outcomes and differentiate the care they provide. Letter grading.
health records (PHR), meaningful use, interoperability, and health information exchanges (HIE). Letter grading.

440B. Health Information Systems: Organization and Management. (4) Lecture, two hours; laboratory, three hours. Requisite: course 440A. Health and administrative research using clinical records. Principles of planning for routine and special studies. Individual investigation in methods of obtaining and processing data to meet needs of programs in institution and agency. Introduction to principles of medical auditing; analysis of medical and health services. S/U or letter grading.

441. Data Analytics: Identifying, Collecting, and Analyzing Data in Health Care. (4) Lecture, three hours. Requisite: course 439 or proof of waiver examination. Exploration of data sources and uses in health care, e.g., electronic medical records, social media, wireless biosensors, system and facility data. Review of hands-on techniques including data management, development of indexes and metrics, choosing and implementing analysis methods and visualizations. Discussion of role of data collection and processing within health care system. Letter grading.


446. Health-Care Operations Management. (4) Lecture, four hours. Health-care managers are charged with reducing costs and improving financial outcomes in their organizations while simultaneously improving patient service and satisfaction. Focus on operations improvement and how health-care organizations can get things done. Review of integrated, systematic approach and wide variety of operations improvement tools. Designed to further prepare students for entry into managerial positions in health-care organizations by making them aware of importance of operations techniques and strategies at all career levels, and providing them with sufficient knowledge of health-care operations so they can provide departmental input to organization’s leadership. S/U or letter grading.

M449A-M449B. Child Health, Programs, and Policies. (4-4) (Same as Community Health: Sciences M436A-M436B.) Lecture, four hours. Course M449A is requisite to M449B. Examination of history of child health policy trends and determinants of health, structure, and function of health service system; needs, programs, and policies affecting especially at-risk populations. Letter grading.


501. Cooperative Program. (2 to 8) Tutorial, to be arranged. Preparation: consent of UCLA graduate advisor and graduate dean, and host campus instructor, department chair, and graduate dean. Used to record enrollment of UCLA students in courses taken under cooperative arrangements with USC. No more than 8 units may be applied toward master’s degree minimum total course requirement; may not be applied toward minimum graduate course requirement. S/U grading.

596. Directed Individual Study or Research. (2 to 6) Tutorial, to be arranged. Limited to graduate students. Individual guided studies under direct faculty supervision. Only 4 units may be applied toward MPH and MS minimum total course requirement. May be repeated for credit. S/U or letter grading.

597. Preparation for Master’s Comprehensive or Doctoral Qualifying Examinations. (2 to 12) Tutorial, to be arranged. Limited to graduate students. May not be applied toward any degree course requirements. May be repeated for credit. S/U grading.

598. Master’s Thesis Research. (2 to 8) Tutorial, to be arranged. Only 4 units may be applied toward MPH and MS minimum total course requirement; may not be applied toward minimum graduate course requirement. May be repeated for credit. S/U grading.

599. Doctoral Dissertation Research. (2 to 12) Tutorial, to be arranged. May not be applied toward any degree course requirements. May be repeated for credit. S/U grading.

Faculty Roster

Professors
Andrew Apter, PhD
Sebouh D. Aslanian, PhD (Richard Hovannisian Professor of Modern Armenian History)
Eric R. Avila, PhD (Waldo W. Neikirk Term Professor)
Peter Baldwin, PhD
Stephen A. Bell, PhD
Joel T. Braslow, MD, PhD, in Residence
Fotis M. Higbie, PhD
Robin D.G. Kelley, PhD (Gary B. Nash Endowed Professor of U.S. History)
Vinay Lal, PhD
Kely A. Lytle Hernández, PhD (Thomas E. Likka Professor of History)
Valerie J. Matsumoto, PhD (George and Sakaye Aratani Professor of Japanese American Incarceration, Redress, and Community)
Michael Meranze, PhD
David N. Myers, PhD (Sady and Ludwig Kahn Professor of Jewish History)
Anthony R. Pagden, PhD
H. Glenn Penny, PhD (Henry J. Bruman Professor of German History)
Carla Gardina Pestana, PhD (Joyce Oldham Appleby Endowed Professor of America in the World)
David D. Phillips, PhD
Theodore M. Porter, PhD
Sanjay Subrahmanyan, PhD (Irv and Jean Stone Professor)
William R. Summerhill, PhD
Kevin B. Terraciano, PhD
Stefania Tutino, PhD (Peter Reill Professor of European History, 1450 to Modern)
Richard von Glahn, PhD
R. Bin Wong, PhD
Gregory D. Wolff, PhD (Ronald J. Melior Professor of Ancient History)
David K. Yoo, PhD

Professors Emeriti
Edward A. Alpers, PhD
Francis R. Anderson, BA
Stephen A. Aron, PhD (Robert N. Burr Endowed History Department Professor Emeritus)
Ivan T. Berend, PhD
Kathryn Bernhardt, PhD
Ruth H. Bloch, PhD
Robert P. Brenner, PhD
Giorgio Buccellati, PhD
Claus-Peter Clasen, PhD
Robert Dallek, PhD
Ellen C. DuBois, PhD
John B. Duncan, PhD
Christopher Ehret, PhD
Benjamin A. Elman, PhD
Robert G. Frank, Jr., PhD
Stephen R. Frank, PhD
Saul P. Friedländer, PhD (1939 Club Professor Emeritus)
Frank O. Gellatly, PhD
Patrick Geary, PhD
J. Arch Getty, PhD
Carlo Ginzburg, Laurea in lettere (Franklin D. Murphy Professor Emeritus of Italian Renaissance Studies)
Robert A. Hill, MSc
Thomas S. Hines, PhD
Richard G. Hovannisian, PhD (Armenian Educational Foundation Professor Emeritus of Modern Armenian History)
Daniel W. Howe, PhD
Philip C. Huang, PhD
Lynn A. Hunt, PhD (Eugen Weber Professor Emerita of Modern European History)
Margaret C. Jacob, PhD
Russell Jacoby, PhD
Nikki Keddie, PhD
Naomi R. Lamoreaux, PhD
John H. Laslett, DPhil
Peter J. Loewenberg, PhD
Afaq Masrot, DPhil
Lauro R. Martines, PhD
Ronald J. Melior, PhD
Michael G. Morony, PhD
Michael A. Morony, PhD
Fred G. Noteleifer, PhD
Patricia O’Brien, PhD
Herman Ooms, PhD
Merrick Posnansky, PhD
Geoffrey Robinson, PhD
Teófilo F. Ruiz, PhD (Robert and Dorothy Wellman Professor Emeritus of Medieval History)
David Sabeau, PhD (Henry J. Bruman Professor Emeritus of German History)
Michael Salman, PhD
Overview

History is the study of the past of our own society and how it emerged out of the traditions that produced it. At the same time, self-knowledge for students of history comes not only from self-discovery, but from a comparison of their own tradition and experience with those of others. It is only by studying the history of other civilizations and cultures that we can hope to gain perspective on our own.

The course offerings in the Department of History are designed to bring about an understanding of the forces that have shaped the many cultures of this country and the world. UCLA has one of the largest, most distinguished, and most diverse history faculties in the country. Its main emphasis is on the many aspects of social history, but intellectual, cultural, and political history are also strongly represented.

Career Prospects

The undergraduate History major is flexible and far-reaching. Leading to a Bachelor of Arts (BA) degree, it is excellent preparation for a wide variety of careers—law, teaching, business, the communications media, public services, and medicine.

The graduate program leads to the Doctor of Philosophy (PhD) degree in History (a master’s degree may be earned in the process of completing PhD requirements). Traditionally, the Master of Arts (MA) and PhD in History have led to careers in high school, college, and university teaching. Increasingly, they are also being put to use in government service, international business, museum and archival work, and journalism.

Undergraduate Policies

Advanced Placement Credit in History

For entering first years, no course credit is granted for any AP examination.

Undergraduate Major

History BA

Capstone Major

The History major is a designated capstone major. Undergraduate students take a capstone seminar in which they demonstrate mastery of a specialized area of history and a critical understanding of current scholarly concerns, literature, and debate, then design and complete a research project using those primary sources and literature.

Learning Outcomes

The History major has the following learning outcomes:
- Demonstrated appropriate mastery of a specialized area of history
- Demonstrated critical understanding of current scholarly concerns, literature, and debates
- Identification and analysis of primary sources
- Design and execution of a research project, drawing on primary sources and appropriate scholarly literature
- Demonstrated ability to organize and present a brief oral presentation about research

Entry to the Major

Pre-major

While students are completing the lower-division preparation for the major courses, they may be classified as History pre-majors. After completing the six courses with a minimum grade-point average of 2.0, students should petition to enter the major in one of the undergraduate counseling offices, 6284 or 6290 Bunche Hall.

Transfer Students

Transfer applicants to the History major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one semester or two quarters of history of Western civilization or world history, one historical practice course, and three additional lower-division history courses.

Transfer credit for the pre-major courses is subject to department approval. Transfer students should consult with the undergraduate counselors before enrolling in any courses for the major.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major

Required: Six lower-division history courses as follows: two history survey courses selected from History 1A, 1B, 1C, 2B, 2C, 3A, 3B, 3C, 3D, M4, 5, 8A, 8B, 8C, 9A, 9C, 9D, 9E, M10A, 10B, 11A, 11B, 12A, 12B, 12C, 13A, 13B, 13C, 14, 20, 21, or 22; one course selected from History 94, 96W, or 97A through 97O; three additional lower-division history courses (except History 19, 99, 89HC, 99).

The Major

Required: At least 10 upper-division history courses, including (1) two courses in U.S. history, (2) two courses in non-Western history from the same area (i.e., Latin America, Asia, Near East, Africa), (3) two courses in European history or in history of science, (4) one course from 187A through C187R, and (5) one capstone seminar from the History 191 series.

The requirements for U.S., non-Western, and European history may be fulfilled with either upper- or lower-division courses, but majors are required to take a minimum of 10 upper-division history courses.


Honors Program

The honors thesis must be completed in three terms, on the basis of work carried out in History 198A, 198B, and 198C.
Policies

Preparation for the Major
Each course must be taken for a letter grade.

The Major
Each course must be taken for a letter grade.

There is no language requirement for the major; however, students wishing to enter the honors program or planning to do graduate work in history are urged to pursue language study early in their undergraduate careers.

Honors Program
The honors program is designed for History majors who are interested in completing a year-long research project that culminates in an honors thesis. A 3.5 departmental grade-point average is required for admission. To graduate with departmental honors, students must have a cumulative or overall GPA of at least 3.0 in all University-level coursework and at least a 3.5 GPA in all coursework required for the major.

The honors thesis must be completed in three terms, on the basis of work carried out in History 198A, 198B, and 198C. Students must register their intention to undertake an honors thesis with the undergraduate affairs vice chair no later than spring quarter of their junior year.

When students register for honors, they must provide the undergraduate affairs vice chair with a two-paragraph description of their thesis project, which must be approved in writing by the faculty member who agrees to act as their adviser. The undergraduate affairs vice chair must also approve the proposed project in writing.

The faculty adviser is primarily responsible for guiding the thesis work to its completion and assigns grades for the honors courses after the thesis is complete. The honors thesis should be 40 to 60 pages in length and be based on primary source material. Determination of the level of honors awarded (no honors, honors, or highest honors) is made by the undergraduate affairs vice chair, acting in conjunction with the honors committee, at the end of the term in which the thesis is completed.

Undergraduate Minors

History Minor
The History minor introduces students to historical processes and institutions.

Admission
To enter the minor, students must have an overall grade-point average of 2.0 or better and file a petition in the Undergraduate office, 6284 Bunche Hall.

The Minor
Required Lower-Division Courses (10 units):
Any two lower-division history courses.

Required Upper-Division Courses (20 units):
Any five upper-division history courses.

History of Science, Technology, and Medicine Minor
The History of Science, Technology, and Medicine minor takes as its subject matter the ideas, practices, and people concerned with the knowledge of the natural and social world. Using the tools of historical analysis, it explores the development, significance, and impact of science, technology, and medicine around the world. The goal of the minor is to give undergraduates majoring in fields other than history the opportunity to pursue a rigorous program in the historical dimensions of science, technology, and medicine, and their place in society. Students will learn to think critically and write analytically about these subjects.

Admission
To enter the minor, students must be in good academic standing (2.0 grade-point average), have completed 45 units and at least one lower-division course in the history of science or medicine for a letter grade, and file a petition with an adviser in the History Department undergraduate counseling offices, 6284 or 6290 Bunche Hall.

The Minor
Students must take seven classes to satisfy the requirements for the minor. The lower-division requirement is designed to give the student a broad understanding (in time and space) of the historical development of science, technology, and medicine. The upper-division requirement allows students to choose from an array of more focused classes.

Required Lower-Division Courses (10 units):
Two courses from History 2B, 3A through 3D.

Required Upper-Division Courses (20 units):
Five courses on topics in history of science, technology, and medicine: History 179A, 179B, 179C, 180A, M180B, 180C, 187I, 191I.

Students are required to write at least one research paper on a topic in history of science, technology, or medicine. To this end, they must take at least one of the following: History 191I (capstone research seminar); History 199 (individual independent study approved by department adviser); or an honors collegium seminar with a required research paper.

Policies

History 191  and 199  may  be  applied only  once toward  the minor.

Honors collegium courses with significant history of science, technology, and medicine content may be applied toward the upper-division course requirement for the minor.

One upper-division course outside the department may be counted toward the minor, with approval of the history of science field coordinator. The course must address social, historical, and philosophical aspects of science, technology, and medicine.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must maintain an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Major

History MA, CPhil, PhD

Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

History

Lower-Division Courses
1A. Introduction to Western Civilization: Ancient Civilizations, Prehistory to circa AD 843. (5) Lecture, three hours; discussion, one hour. Survey of diverse cultures that shaped foundation of Western civilization to onset of 9th century AD. Investigation of first civilizations in Near East and Egypt. Analysis of worlds of Greeks and Romans. Examination of ways in which western European societies created new syntheses through selective appropriation of Greek and Roman cultures and introduction of new cultural forms. P/NP or letter grading.

1AH. Introduction to Western Civilization: Ancient Civilizations, Prehistory to circa AD 843 (Honors). (5) Lecture, three hours; discussion, two hours. Honors sequence parallel to course 1A. P/NP or letter grading.

1B. Introduction to Western Civilization: Circa 843 to circa 1715. (5) Lecture, three hours; discussion, one hour. Introduction to history of the West and its connections to rest of world from 843 to 1715. Profound social, political, cultural, and intellectual changes that affected development of modern world. Topics covered include economic, social, and cultural aspects of feudal system; relationship between Church and empire; new religious movements (including the Reformation); formation of nation-states; relationship between Western Europe and non-European and non-Christian people and traditions. P/NP or letter grading.
1BH. Introduction to Western Civilization: Circa AD 843 to circa 1715 (Honors). (5) Lecture, three hours; discussion, two hours. Honors sequence parallel to course 1C. P/NP or letter grading.

1C. Introduction to Western Civilization: Circa 1715 to Present (Honors). (5) Lecture, three hours; discussion, two hours. Introduction to history of the West and its connection to rest of world after 1715, during period of sweeping changes in social, political, and cultural institutions and transformations. Topics covered include industrialization, rise of nationalism and mass politics, revolutionary movements, urbanization, mass global migrations, European expansion, and imperialism, and decolonization, leading to emergence of new nation states in Europe’s former colonies. P/NP or letter grading.

1CH. Introduction to Western Civilization: Circa 1715 to Present (Honors). (5) Lecture, three hours; discussion, two hours. Sequence parallel to course 1C. P/NP or letter grading.

2B. Social Knowledge and Social Power (5) Lecture, three hours; discussion, two hours. History of social knowledge, development of intellectual tools necessary for thinking analytically, empathetically, and comparatively about fascinating events in human history. Examination of origins of Holocaust, perpetrators and victims, and changing efforts to come to terms with this genocide. Exploration of forces that led to Holocaust, including emergence of scientific racism and Hitlerian state. Consideration of debates about implementation of genocide, including significance of gender and sexuality; role of religion in genocide; meanings of resistance and culpability, and political and philosophical implications of Holocaust. Exploration of how genocide of European Jewry was intertwined with targeting of other victims of Nazi rule, including Roma, Slavs, Black Germans, disabled, homosexuals, black political opponents of National Socialism. P/NP or letter grading.

5A. Colonial Latin America. (5) Lecture, three hours; discussion, one hour. Not open for credit to students with credit for course 5AH. P/NP or letter grading.

5B. Modern Latin America. (5) Lecture, three hours; discussion, one hour. Introductory survey of social, political, and economic history of Latin America after independence, region that includes Mexico, Central and South America, and Caribbean. Formation of independent nation states and political regimes and quest for sovereignty and its challenges in shadow of U.S., approach through Latin American intellectual history, everyday life, and popular culture. P/NP or letter grading.

12B. Inequality: History of Neoliberalism. (5) Lecture, three hours; discussion, two hours. Origins and early impact of neoliberalism in industrialized West, with end of U.S.-Mexican War (1848) and ending with 2008 election. P/NP or letter grading.

11B. History of China. (5–5) Lecture, three hours; discussion, one hour. Honors course parallel to courses 11A and 11B. P/NP or letter grading.

11A. History of China. (5–5) Lecture, three hours; discussion, two hours. Not open for credit to students with credit for course 11B or 11H. Survey of early history of China—genealogy of characteristic Chinese institutions and modes of thought and development of Chinese political, social, political, intellectual, and economic aspects of early and middle empires. Circa 1000 to 2000. Survey of later history of China—evolution of characteristic Chinese institutions and modes of thought from circa 1000 to 2000. Focus on social, political, intellectual, cultural, and economic aspects of early modern regimes and empires and rise of modern China into contemporary era.

5AH. Colonial Latin America (Honors). (5) Lecture, three hours; discussion, one hour. Focus on writings of Latin American men and women from the period studied. P/NP or letter grading.

5BH. Modern Latin America (Honors). (5) Lecture, three hours; discussion, two hours. Historical and contemporary perspective of role of ordinary people in Latin American society. Each lecture/film session centers on a major Latin American movie illustrative of a theme in social history. P/NP or letter grading.

5CH. Latin American Social History (Honors). (5) Lecture, three hours; discussion, two hours. Honors course parallel to course 5C. P/NP or letter grading.

5EA. Introduction to Asian Civilizations. (5 each) Lecture, three hours; discussion, two hours. P/NP or letter grading.

9A. History of India. Introductory survey for beginning students of major cultural, social, and political developments of Indian civilization. Circa 3000 BC to 1800 AD. P/NP or letter grading.

9B. History of China. Survey of Chinese history from earliest recorded time to the present, with emphasis on development of China as a cultural, political, and economic entity. Consideration of the nature of Chinese civilization which became unique. Creation of the modern state in the last century and impact of Western imperialism. P/NP or letter grading.

9C. History of Japan (Honors). Honors course parallel to course 9C.

9D. History of Middle East. Introduction to history of Muslim world from advent of Islam to present day.

9E. History of Africa. Overview of history of a region united by its wet tropical environment and divided by great religious, cultural, and political pluralism, with focus on Vietnamese, Thai, Filipino, Kihem, Burmese, and Malay-Indian patterns.

M10A-10B. History of Africa. (5–5) P/NP or letter grading.

M10A. To 1800. (Same as African American Studies M10A.) Lecture, three hours; discussion, one hour. Exploration of development of African societies from earliest times to late 18th century. 10B. To 1800. Lecture, three hours; discussion, two hours. Not open for credit to students with credit for course 10B or 10BW. Survey of social, economic, and political developments in Africa since 1800, with focus on slavery, imperialism, and colonialism, and independence. Consideration of debates about implementation of racist thinking and racial policies, including genocides, forced labor, and displacement. P/NP or letter grading.

10BW. Introduction to Civilizations of Africa since 1800. (5) Lecture, three hours; discussion, two hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Not open for credit to students with credit for course 10B or 10BW. Survey of social, economic, and political developments in Africa since 1800, with focus on slavery, imperialism, and colonialism, and independence. Consideration of debates about implementation of racist thinking and racial policies, including genocides, forced labor, and displacement. P/NP or letter grading.

11A-11B. History of China. (5–5) Lecture, three hours; discussion, one hour. Honors sequence parallel to courses 11A, 11B, P/NP or letter grading. 11AH, To 1000 (Honors); 11B, To 1900 (Honors).


12B. Inequality: History of Neoliberalism. (5) Lecture, three hours; discussion, one hour. Exploration of origins, ideas, and consequences of neoliberalism—theory that society is best organized on principles of free trade, deregulation, and privatization. Consideration of political, economic, and intellectual history to construct genealogy of neoliberal thinking by tracing back to 18th-century liberalism, colonialism, imperialism, rise of social democracy and welfare state. Consideration of debates about implementation of racist thinking and racial policies, including genocides, forced labor, and displacement. P/NP or letter grading.

12C. Inequality: Global History of Anti-Colonial Thought and Struggle. (5) Lecture, three hours; discussion, one hour. Ongoing growth and normalization of poverty, violence, and racial hatred in neo-liberal present have direct linkage to earlier moment when
colonial rule of previous century brought about global structure of inequality. Examination of some of most important voices of anti-colonial and anti-imperialist struggle for freedom. Perspective in order to his topical current junctures. Background include Aimé Césaire, Frantz Fanon, Ho Chi Minh, Toten Miyazaki, Sun Yat-Sen, Shusui Kotoku, Malcolm X, Che Guevara, and Mahatma Gandhi. Use of dialogue to reveal and reflect on differences and divergences of thinker/activist pairs. Historical background for each thinker and active engagement in interpretation and discussion. Focus on way to reflect on current conjecture. P/NP or letter grading.

13A–13B–13C. History of the U.S. and Its Colonial Origins. (5–5–5) Lecture, three hours; discussion, one hour. Strongly recommended for History majors planning to take more advanced courses in U.S. history. Focus on themes of ancient kingship and political ideology; comparative study of empires; administration and institutions; and religious and ethnic diversity in large, heterogeneous states. Emphasis on diversity critical to understanding political nuances of ancient world. Students gain broad knowledge of Achaemenid and Macedonian empires, facility with ancient primary sources, and development of analytical skills central to discipline of history that allow conceptualizing issues of diversity and othering in ancient world. P/NP or letter grading.

M60W. Achaemenid Civilization and Empire of Alexander. (5) (Same as Ancient Near East M60W and Ira- nian M60W.) Lecture, three hours; discussion, one hour. Prerequisite: Enrollment of 20 lower-division students. Readings and discussions designed to intro- duce students to current research in discipline. Camu- lating project may be required. P/NP or letter grading.

888E. Sophomore Seminar: Special Topics in History. (5) Seminar, four hours. Prerequisite: designated GE lecture course; see Schedule of Classes for specific requisite lecture and seminar topics. Designed for sophomores/juniors. Exploration of aspects of lecture topics through readings, images, and discussions. P/NP or letter grading.

969W. Introduction to Historical Practice. (5) Seminar, three hours. What is history? What is history, who is it that we study, how do we study, and why should we study his- tory? Introduction to basic principles of historical in- quiry. Exploration of how we came to know about the past and why it matters. In-depth examination of how the historian works and analysis of sources and visual matters, including site visits. P/NP or letter grading.

100. History and Historians. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Study of historiography, including in- telllectual processes by which history is written, results of these processes, and sources and development of history. Attention also to representative historians. P/NP or letter grading.

101. Topics in World History. (4) Lecture, three hours; discussion, one hour (when scheduled). Course C101A is not requisite for C101B. Designed for juniors/seniors. Topics may include gender, world history, masculinity, and eco- nomic history. May be repeated for credit with topic change. Concurrently scheduled with courses C208A- C208B, P/NP or letter grading.

102A. Iran and Persianate World. (4) Lecture, three hours; discussion, one hour (when scheduled). De- signed for juniors/seniors. Development of model of Persianate world to bring together histories of Iran, India, and central Asia (including Afghanistan) be- tween circa 1200 and 2000. Comparison of different peoples from major cultural centers where Persian was used as common language of in- tellectual, religious, social, and political exchange. Focus on particular thematic, with lecture material supplemented by translations of writings of princes, poets, tribemen, travelers, and mystics who created Persian republic of letters between Shiraz, Sa- marqand, and Delhi, and even as far as Siberia and China. Examination of why and how various ethnic and professional groups made Persian into one of most important languages in world history. P/NP or letter grading.

M103A–M103B. History of Ancient Egypt. (4–4) (Same as Ancient Near East M103A–M103B.) Lecture, three hours; discussion, one hour (when scheduled). Course M103A is not requisite for juniors/seniors. Political and cultural institutions of ancient Egypt and ideas on which they were based. P/NP or letter grading. M103A. Chronological discussion of Prehistory, Old and Middle Kingdom, M103B. New Kingdom and Late period until 332 BC.

M104A. History of Ancient Mesopotamia and Syria. (4) (Same as Ancient Near East M104A.) Lecture, three hours; discussion, one hour (when scheduled). De- signed for juniors/seniors. Focus on the development of Fertile Crescent, including Palestine, from Late Uruk to neo-Babylonian period. P/NP or letter grading.

with focus on rich cultural history of region and integration of archaeological, art historical, and written records. P/NP or letter grading.

M104C. Babylonians. (4) Same as Ancient Near East M104C.) Lecture, three hours. Designed for juniors/seiors. Overview of Babylonian culture with focus on history and archaeology of region, with special interest in literature, and legal practices. P/NP or letter grading.

M104D. Assyrians. (4) Same as Ancient Near East M104D.) Lecture, three hours. Designed for juniors/seiors. Overview of Assyrian cultural history from its origins to end of Neo-Assyrian period (circa 612 BCE), with focus on rise, mechanics, and decline of Neo-Assyrian Empire, which at its peak ruled ancient Near East from Zagros to Egypt. P/NP or letter grading.

105A/105A-105C. Survey of Middle East, 500 to Present. (4-4-4) Lecture, three hours; discussion, three hours; discussion, one hour (when scheduled). Designed for juniors/seiors. Background and circumstances of rise of Islam, creation of Islamic Empire, and its development. Ris of Dynastic Successor States and Modern Nations. Social, intellectual, political, and economic development. P/NP or letter grading. 105A. 500 to 1300; 105B. 1300 to 1700; 105C. 1700 to Present.

M106B. History of Abbasid Empire. (Same as Religion M106A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seiors. Emphasis on history of Abbasid Empire and its impact on societies in the region. P/NP or letter grading.

107A-107B-107C. Armenian History. (4-4-4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seiors. P/NP or letter grading. 107A. Armenia in Ancient and Medieval Times (circa 400 BC to 14th century AD). 107B. Armenia from Cilician Kingdom through Periods of Foreign Domination and National Stirrings, 11th to 19th centuries. 107C. Armenia in Modern and Contemporary Times (20th century to present). General introduction to political, economic, social, and cultural history of the Armenian question and genocide, national republic, Soviet Armenia, and dispersion.

107D. Introduction to Armenian Oral History. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seiors. Survey of oral traditions and techniques of Armenian oral history; preinterview, interview, and postinterview procedures; methods of compiling oral histories, field assignments, interviews, and summaries and/or paper based on interview. P/NP or letter grading.

107E. Caucasus under Russian and Soviet Rule. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seiors. Survey of historical, political, economic, social, and cultural history of Caucaus region since 1801. Georgian, Armenian, and Azerbaijani response to Russian and Soviet rule; nationalization question and Soviet national republics. P/NP or letter grading.

108A. History of North Africa from Islamic Conquest. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seiors. Survey of political, social, economic, and religious history of Islamic West (Maghrib) from Muslim conquest in 7th and 8th centuries CE until 1578. P/NP or letter grading.

108B. History of Islamic Iberia. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seiors. Survey of political, social, economic, religious, artistic, and literary history of Islamic culture in Western Europe. P/NP or letter grading.

108C. Maghrib (North Africa). (4) (Same as Anthropology M166Q and Arabic M171.) Lecture, three hours. Designed for juniors/seiors. Introduction to North Africa, especially Morocco, Algeria, Tunisia, and Libya, also known as Maghrib and Maghreb. Topics include changing notions of personal, tribal, ethnic, linguistic and religious identities; colonialism; gender and legal rights, changing representations of Islam, and religions in public spaces, P/NP or letter grading.

109B. History of Israeli-Palestinian Conflict, 1881 to Present. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seiors. Examination of the origins of Arab-Israeli dispute from mid-19th century through founding of state of Israel and expulsion/flight of three quarters of million Palestinians from their homes. Exploration of social history of Palestine up to Zionist colonization, origins of Zionist and Palestinian nationalisms, varieties of Zionism and colonialism, seminal events and their consequent symbolic contradictions Great Revolt of 1936/1939, nakba (catastrophe) of 1948, and redenfication of conflict as result of Oslo, P/NP or letter grading.

110A-M110B-M110C. Iran Civilization. (4–4–4) (Same as Ancient Near East M110A-M110B-M110C and Iranian M110A-M110B-M110C.) Lecture, three hours; discussion, one hour (when scheduled), P/NP or letter grading. 110A. History of Achaemenid Empire and its successor, Persian Empire. Emphasis on political history, state structure, empire’s religions, and religions in region’s public spaces. P/NP or letter grading. 110B. History of Arsacid (Parthian) Empire. From Hellenistic rule in Persia to Sassanian conquest of Iran. Emphasis on political, economic, social, and cultural history of Persia from fall of Arsacids to Muslim conquest of Iran. Further accent on Islamic rule in Iran and Mezopotamia, Seleucid demise and Arsacid hegemony in East, Arsacid-Roman wars, rise of Sasanians. 110C. History of Early Sassanian Empire—From Ardashir I to Rise of Peroz (circa 224–459 CE) From fall of Arsacids to Islamic conquest of Iran. Emphasis on political, economic, history, evolution of state structure, empire’s religious landscape (Mazdism, Manichaeism, Elixarchate, Church of Persia, Mazdaism), Persian and Roman/BYZantian interactions, and their impact on Persian-Roman conflicts and cooperation, Persia and Huns.

111A-111B-111C. Topics in Medieval Eastern History. (4–4–4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seiors. May be repeated for maximum of 16 units with topic and/or instructor change. P/NP or letter grading. 111A. Premodern. Examination of major issues in history of Middle East. 111B. Early Modern. Examination of Islamic world, of society, development of world economy, of world economy paradigm through discussion of Ottoman port cities. 111C. Modern. Middle East underwent widespread social, economic, and cultural changes during 19th century to modern era; society, at least portions of society and aspects of its social/cultural life, in entirely new direction. Examination of those changes to understand exactly what modernity meant for region.

112A-112B. History of Ancient Mediterranean World. (4–4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seiors. P/NP or letter grading. 112A. Survey of history of ancient Greece from earliest times to foundation of Persian Empire. 112B. History and institutions of Greeks from their arrival to death of Alexander.

112D. History of Ancient Mediterranean World: Greco-Roman. (4) Lecture, discussion, one hour (when scheduled). Designed for seniors. Examination of history of ancient Greek world from circa 2,000 to 300 BC and its legacy in modern times. Study of Imperialism and decline of Republic; Alexander the Great and Roman slavery, world of Caesar Augustus, Greek democracy, and Alexander the Great. May be repeated for maximum of 16 units with topic and/or instructor change. P/NP or letter grading.

114A-114B-114C. History of Rome. (4–4–4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seiors. P/NP or letter grading.

114A. To Death of Caesar. Emphasis on development of imperialism and on constitutional and social struggles of late republic. 114B. From Death of Caesar to Time of Constantine. Early empire treated in more detail, supplemented by survey of social and economic changes in 3rd century. 114C. Transformation of Classical World. Political, social, religious, and cultural history of Mediterranean in late antiquity, from crisis of Roman Empire in 3rd century to barbarian and Arab invasions and beginning of medieval states and societies in 7th century.

115. Topics in Ancient History. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seiors. Introduction to topics in Greek and Roman history, including Roman law, ancient Greek and Roman slavery, world of Caesar Augustus, Greek democracy, and Alexander the Great. May be repeated for maximum of 16 units with topic and/or instructor change. P/NP or letter grading.

M115B. Power and Imagination in Byzantium. (4) (Same as Classics M115C.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seiors. Political, social, economic, and religious and cultural continuity in millennial history of Byzantium. Reforms of Justinian, evolution of Justinian's relations with Latin Europe, Slavs, Sassanians, Arabs, and Turks. P/NP or letter grading.

M116C. Power and Imagination in Byzantium. (4) (Same as Classics M117C.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seiors. Study of relations of authority and intelligentsia in highly centralized Byzantine Empire. Topics include criticism of emperor, iconoclasm, intellectual freedom, attempts at reform. Letter grading.

119A-119B. Medieval Europe. (4–4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seiors. Basic introduction to Western Europe from Latin antiquity to age of discovery, with emphasis on medieval use of Greco-
Roman antiquity, history of manuscript book, and growth of literacy. P/N or letter grading. 119A. 400 to 1000; 119B. 1000 to 1500.

119C. Medieval Civilization: Mediterranean Heartlands. (4 each) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of Western Mediterranean Europe, social/economic/cultural within political framework, including its relation with other cultures. P/N or letter grading.

119D. Medieval Civilization: East-Central Europe. (4–4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Special topics in history of Middle Ages, including religion in society, justice and law, politics of war and diplomacy, economic upheaval and renewal, and cultural representations. May be repeated for maximum of 16 units with topic and/or instructor change. P/N or letter grading.

120A-120B. East-Central Europe. (4–4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/N or letter grading.

120A. Long 19th Century, 1790 to 1914. Analysis of characteristics of peripheral 19th-century capitalism, efforts to modernize state catch up, and factors and consequences of its partial failure in economy, politics, and culture. 120B. Short 20th Century, 1918 to 1990. Analysis and interpretation of stormy history of crisis zone of East-Central Europe, revolutions, and World Wars, and different types of extremisms led to historical de-tour: 70 years of departure from Western values and at last disillusionment of expectations.


121A. History of Modern Europe: Renaissance and Reformation, 1450 to 1660. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Reorganization of power, new forms of representation, and discourses about rule and obedience in Europe from mid-15th through 18th century; popular culture; peasantry; estrangement of religion and state; popular culture; absolutism; and decentralization at home and abroad; peasant problem; beginnings of industrialization; movements of political and social protest; non-Russian peoples; political reforms and social changes; Revolution of 1861; Russia in World War I; fall of old regime. P/N or letter grading.

121B. History of Modern Europe: Era of Total War, 1914 to 1945. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for Juniors/seniors. World War I, introduction to World War II, social, cultural, political, and economic aspects, with focus on strain between model of parliamentary democracy and dynamics of mass politics (e.g., Bolshevik Revolution, Italian Fascism, national socialism, and Spanish Civil War). P/N or letter grading.

121C. History of Modern Europe: World War II and Its Aftermath, 1939 to Present. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. World War II, origins and existence of Cold War, reconstruction in West, de-Stalinization, decolonization, crisis of welfare state, background to and course of 1989 revolutions, current political configuration. P/N or letter grading.

122A-122F. Cultural and Intellectual History of Modern Europe. (4 each) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/se-niors. Cultures of taste and cultures of opinion. Educati-onal, moral, and religious attitudes; art, thought, and manners of time in historical context. P/N or letter grading.


122A-122B. World War I and Its Aftermath. (4–4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/N or letter grading.


122A-124B-124C. History of France. (4–4–4) Lecture, three hours; discussion, one hour (when sched-uled). Designed for juniors/seniors. P/N or letter grading.


122A. Baroque and Enlightenment Germany. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Changing nature of state and social domination; redeployment of military violence; strategies of population discipline; absolutism and baroque culture; new forms of bureaucratic intervention; new forms of military aggression; bodily and witch persecutions. P/N or letter grading.

122B. Nationalism and Modernization in 19th-Century Germany. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Development of state institutions, culture, and society in Central Europe from end of Napoleonic Wars to end of 20th century. 122C. Nationalism and Modernization in 20th-Century Germany. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Transitions that Germany has faced during this century: two world wars, shift from monarchy to republic to national socialism to divided nation, and finally reunification. Consideration of political, social, economic, and cultural spheres. P/N or letter grading.

125D. History of Low Countries. (4) Lecture, three hours; discussion, one hour (when scheduled). Des-igned for juniors/seniors. Examination of aspects of Dutch and Belgian nation building. Overview of medieval period to period after World War II, with emphasis on political and cultural history. Topics include Middle Ages, Dutch Republic in 17th and 18th centuries, Low Countries from 1830 to 1918, Netherlands and Bel-gium in context of Europe after 1945. P/N or letter grading.

126. Europe in Age of Revolution, circa 1775 to 1815. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Period from revolt of Thirteen Colonies to French Revolu-tion of 1789, and Napoleonic regime, viewing social and political changes unleashed by these revolu-tionary movements in comparative and transnational perspective. P/N or letter grading.

127A. History of Russia, Origins to Rise of Musco-ny. (4) (Same as Russian M112.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Kievan Rus’. Beginning of the Russian State: prin-cipalities and towns; Mongol invasion; unifi-cation of Russian state by Muscovy, Autocracy and its principalities.

127B. History of Russia: Imperial Russia from Peter the Great to Nicholas II. (4) Lecture, three hours; dis-cussion, one hour (when scheduled). Designed for ju-niors/seniors. Westernization of state and society; centralization of power; origin of autocracy; man-nerism, religious experience, and new cultural genres; ideological confrontations between superpowers and their allies and clients in Europe, Asia, and Latin America.

127C. History of Russia: Revolutionary Russia and Soviet Union. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/ seniors. Revolutions of 1917, Civil War, consolidation of Bolshevik Regime; succession crisis and ascen-dancy of Stalin, collectivization and industrialization; foreign policy and World War II; death of Stalin, de-Stalinization, developments since; stagnation or sta-bility? P/N or letter grading.

127D. History of Russia: Culture and Society in Im-perial Russia. (4) Lecture, three hours; discussion, one hour (when scheduled). Recommended prepara-tory course 127B or Russian M112. Designed for juniors/seniors. Thematic examination of culture and society in Russia during era of state-sponsored West-ernization (1868 to 1905). Topics include nobility, serfdom, and village life from 17th century; emancipation era, urban society, working-class life and thought, women, clergy, religion, popular culture, ac-culturalization, and resistance. P/N or letter grading.

128A-128B-128C. History of Italy. (4–4–4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/N or letter grading. 128A. 1350 to 1559. Most important social, economic, political, and cultural developments in history of Italy during later Middle Ages and Renaissance. 128B. 1559 to 1848. Counter-Revolution and absolutism, Enlightenment reforms, revolutionary era, and first Italian Risorgimento. 128C. Italy in the 19th century. Political, economic, social, diplomatic, and ideological developments.

129A-129B. Social History of Spain and Portugal. (4–4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/N or letter grading.

129A. Age of Silver in Spain and Por-tugal, 1479 to 1789. Development of popular history in Iberian Peninsula. Emphasis on peasants and urban life, gold routes, slave trade, history of women, and development of different types of collective vio-lence. 129B. Rebellion and Revolution in Modern Spain and Portugal, 1789 to Present. Spain’s position during the Napoleonic Wars and its potential to emerge dis-cussed through investigations of urban history,
agrarian social structure, history of women, problems of slow industrial development, imperialism, anarchism, and labor history.

130. History of European Political Thought. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Introduction to principal themes in history of European political thought from classical antiquity to close of early modern period. Study of outstanding contributions to history of social, political, and moral philosophy in texts of major thinkers such as Plato, Aristotle, Machiaveli, More, Hobbes, Locke, and Rousseau. Reconstruction of historical setting and ideological context from which their work emerged to help students make sense of works of political philosophy in their relevant historical setting and to know something about Athenian democracy, Roman republic, Renaissance, early modern European civil wars, American and French Revolutions, and Enlightenment. Focus on emergence of some crucial concepts during this period—ideas about state, rights, sovereignty, liberty, private property, and more—that define way we think about politics and society in modern world. P/NP or letter grading.

131A-131B. Marxist Theory and History. (4) Lecture, three hours; discussion, one hour (when scheduled). Course 131A is generally requisite to 131B. Designed for juniors/seniors. Introduction to Marxist philosophy and method; conception of historical stages; comparison of methods of transition from feudalism to capitalism to capitalism via imperialism to Marxism as a world historical process; different patterns of European settlement, including both stability and change under pressure of industrialization, emergence of capitalism, and development of capitalist economy. P/NP or letter grading.

132. Topics in European History. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Integrated introduction to important aspects of European history, with emphasis on specific topic within broad framework. May be repeated for maximum of 16 units with topic and/or instructor change. P/NP or letter grading.

M133A-M133B. History of Women in Europe. (4-4) (Same as Gender Studies M133C.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. History of social, political, and cultural roles of women in Western Europe from early Middle Ages to present. P/NP or letter grading. M133A, 800 to 1715; M133B, 1715 to present.

M133C. History of Prostitution. (4) (Same as Gender Studies M133C.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. History of prostitution from ancient times to present. Topics include tolerance in medieval Europe, impact of syphilis, birth of courtesan, regulation in 19th-century Europe, changing scopophilia, and contemporary global sex trade. Readings include novels, primary sources, and testimony by sex workers. P/NP or letter grading.

134B-134C. Economic History of Europe. (4-4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading. 134B, 1780 to 1914. Analysis of emergence of European world economy, first Industrial Revolution, revolutionary changes in technology, demographic patterns, education, transportation, and interrelationship between Western core and European peripheries, industrialization, 1940-20th Century. Changing European economy after World War I and II and in 1990s; impact of fourth and fifth Industrial Revolutions; Great Depression of centruy during 1930s; and changing nationalization strategies; import-substituting industrialization in peripheries; Soviet modernization dictatorship in East Central Europe and its collapse; integration processes in second half of century and rise of European Union; modernization model at end of century. P/NP or letter grading.

135A. Europe and World: Exploration and Conquest, 1400 to 1700. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. First phase of European expansion in Americas, Af-rica, and Eurasia. Analysis of motives and methods of expansion, differing patterns of European settlement, including plantation economy, and development of new commercial networks, including Atlantic slave trade. P/NP or letter grading.

135B. Europe and World: Colonialism, Slavery, and Revolution, 1700 to 1870. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Origins and gradual increase of Euro-pean dominance of world trade, impact of European colonialism, slavery, and revolution on social, economic, and political structures of both stability and change in 19th century. New revolutionary ideas that took shape in wake of Enlightenment of 18th century, and beginnings of indus-trialization. P/NP or letter grading.


136A-136B-136C. History of Britain. (4-4-4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Analysis of British society, economy, and polity, with focus on dynamics of both stability and change under industrializing, P/NP or letter grading.

137A-137B. British Empire since 1783. (4-4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Study of outstanding contributions to development of British Empire, including evolution of colonial nationalism, development of commonwealth idea, and changes in British colonial policy. P/NP or letter grading.

138A. Colonial America, 1600 to 1763. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of molding of European ideas, goods, wealth, and politics, as well as compar-ison of their expression in British Empire, including evolution of colonial nationalism, development of commonwealth idea, and changes in British colonial policy. P/NP or letter grading.

139A. Colonial America, 1763 to 1870. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Development of British Empire, including evolution of colonial nationalism, development of commonwealth idea, and changes in British colonial policy. P/NP or letter grading.

140A. U.S., Civil War and Reconstruction. (4) Lecture, three hours; discussion, one hour (scheduled). Designed for juniors/seniors. Survey of American cultural history since 1865, with emphasis on historical development of urban, consumer-oriented American mass culture that enveloped diverse groups of Americans as producers and consumers. Historical development of American popular culture according to changing set of political, economic, and social circumstances. Evolu-tion of national and global framework for mass circula-tion of popular cultural production as arrival of new technologies that enabled that development. P/NP or letter grading.

140B. U.S., 1875 to 1900. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Study of American political, social, and institutional conditions that have been important in this country, with emphasis on relating developments in religion and culture to other aspects of American culture. P/NP or letter grading.

140C. U.S., 1900 to 1929. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. American political, social, and institutional history in period of great change. Emphasis on altering concepts of role of government and responses to that alteration. P/NP or letter grading.


141A-141B. American Economic History. (4-4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Problems of interpretation of history. Emphasis on historical development of urban, consumer-oriented American mass culture that enveloped diverse groups of Americans as producers and consumers. Historical development of American popular culture according to changing set of political, economic, and social circumstances. Evolu-tion of national and global framework for mass circula-tion of popular cultural production as arrival of new technologies that enabled that development. P/NP or letter grading.

142A-142B. Intellectual History of U.S. (4-4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Principal ideas and events in the history of the United States, from its origins to the present. P/NP or letter grading.

142C. History of Religion in U.S. (4) (Same as Religion M142C.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of the central religious ideas that have been part of American history. Sources of these ideas, their connections with one another, their relationship to American life, and their expression in major documents of American thought. P/NP or letter grading.

143A. Origins and Development of Constitution- alism in U.S. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. American political, social, and institutional history in period of great change. Emphasis on altering concepts of role of government and responses to that alteration. P/NP or letter grading.

144. America in World. (4) Lecture, three hours; discussion, one hour (scheduled). Designed for juniors/seniors. American political, social, and institutional history in period of great change. Emphasis on altering concepts of role of government and responses to that alteration. P/NP or letter grading.
nialism, Philippine nationalism, history of Filipino Americans, and Philippine diaspora in 20th century. P/NP or letter grading.


146A. American Working Class Movements. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Major episodes in the history of labor movements in U.S. labor history from the early 19th century to the present. Problems include the relationship of the labor movement to broader social and economic trends, the role of industrial unionism and trade unionism, and the relationship of labor movements to social change and political change.

146C. Migrant Nation: How Mobility Shapes American and Comparative Immigration from 1750 to Present. Special focus on Southern California. P/NP or letter grading. 147. American Women. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Study of women's roles in American history from the colonial period to the present.

148. Introduction to Public/Applied History. (4) Lecture, four hours. Introduction to the practice of writing of history. Focus on the development of the field of public history and applied history, including the role of historians in documenting and interpreting the past, the role of historians in public policy formulation, and the role of historians in the preservation and interpretation of cultural and historical resources.

150A. Comparative Slavery Systems. (4) Same as African American Studies M158A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of slavery systems in various New World slave societies, with emphasis on outlining similarities and differences among legal status, treatment, and slave cultures of North American, Caribbean, and Latin American slave societies. P/NP or letter grading.

150B-M150C. Introduction to Afro-American History. (4–4) Same as African American Studies M158B-M158C.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of African-American experience, with emphasis on three general transitions of African-American life: transition from Africa to New World slavery, transition from slavery to freedom, and transition from rural to urban milieus. P/NP or letter grading.

150D. Recent African American Urban History: Funk Music and Politics of Black Popular Culture. (4) Same as African American Studies M150D.) Lecture, three hours; discussion, one hour (when scheduled). Study of African-American music from the 1940s to the present, with emphasis on the development of the funk genre and its role in the civil rights movement and the rise of black power politics.


151B, 151C. History of Chicano/a and Central American Studies. (4) Same as Chicana/o and Central American Studies M159B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey course on historical development of Mexican (Chicano) community and people of Mexican descent in U.S. through 20th century, with special focus on labor and politics. Survey also includes material on contemporary Chicano/a community and political involvement in U.S.

152. Asians in American History. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Study of the history of Asian Americans in the United States, focusing on the role of immigration, labor, and politics in shaping the development of Asian American communities.

153. American West. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Seminar on the history of the American West, focusing on the development of the region from the 19th century to the present.

154. History of California. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Study of the political and social development of California from earliest times to present. P/NP or letter grading.

155. History of Los Angeles. (4) Same as Chicana/o and Central American Studies M155.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Social, economic, cultural, and political development of Los Angeles and its environs. Focus on the role of Los Angeles in the development of diverse peoples of the area, changing physical environment, various interpretations of the city, and Los Angeles' place among American urban centers. P/JP or letter grading.
156. Topics in U.S. History. (4) Lecture, three hours; discussion, one hour (when scheduled). Designated for juniors/seniors. Examination of specific historical themes and/or major issues in U.S. history. May be repeated for maximum of 16 units with topic and/or instructor change. P/NP or letter grading.

157A. Early Latin America. (4) Lecture, three hours; discussion, one hour (when scheduled). Designated for juniors/seniors. Survey of social and cultural history of Latin American nations from their independence to around 1910. Emphasis on internal view of Indian groups and patterns on basis of records produced by Indians themselves. P/NP or letter grading.

159. Latin America in 19th Century. (4) Lecture, three hours; discussion, one hour (when scheduled). Designated for juniors/seniors. Intensive analysis of economic, social, and political problems of Latin American nations from their independence to around 1910. P/NP or letter grading.

160A. Latin American Elitelore. (4) Lecture, three hours; discussion, one hour (when scheduled). Designated for juniors/seniors. Elitelore (defined as oral or noninstitutionalized knowledge involving leaders' conceptual and personal views) in contrast to folklore (followers' traditional or popular views). Elitelore genres include oral history, literature, and cinema. P/NP or letter grading.

160B. Mexican Revolution since 1910. (4) Lecture, three hours; discussion, one hour (when scheduled). Designated for juniors/seniors. Examination of permanent crisis to describe and explain structure of permanent revolution under one-party democracy. Analysis of 19th and 20th-century problems and crises that have influenced modern-day Mexico, if in modified form. P/NP or letter grading.

161. Topics in Latin America History. (4) Lecture, three hours; discussion, one hour (when scheduled). Designated for juniors/seniors. Examination of major issues in history of Latin America. May be repeated for maximum of 16 units with topic and/or instructor change. P/NP or letter grading.

164D. Topics in African History: Africa and Diaspora in Global and Comparative Perspective. (4) Lecture, three hours; discussion, one hour (when scheduled). Preparation: one prior course in African history at UCLA. Designed for juniors/seniors. Forced migration of Africans through overseas slave trade was formative event of modern world. Exploration of that experience and its lasting consequences by placing it in its global context, among the Africans, European, Islamic, and Asian. P/NP or letter grading.

164E. Topics in African History: Africa, 1945 to Present. (4) Lecture, three hours; discussion, one hour (when scheduled). Preparation: one prior course in African history at UCLA. Designed for juniors/seniors. History of Africa south of Sahara from end of World War II to present. Last phases of colonial rule in Africa, African modern history: political, economic, social, and cultural development of African states and influence of Europe; and achievement of independence. Political, social, and economic change in colonies and in independent states of Africa. Neocolonialism, exploitation in national development, and in South Africa, ideological conflict in contemporary Africa, and Africa in world affairs since 1957. P/NP or letter grading.

165. Topics in African History. (4) Lecture, three hours; discussion, one hour (when scheduled). Preparation: one prior course in African history at UCLA. Designed for juniors/seniors. elite (defined as oral or noninstitutionalized knowledge involving leaders' conceptual and personal views) in contrast to folklore (followers' traditional or popular views). Elitelore genres include oral history, literature, and cinema. P/NP or letter grading.

166A-166B. History of West Africa. (4–4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading.


167B. History of East Africa. (4) Lecture, three hours; discussion, one hour (when scheduled). Designated for juniors/seniors. Survey of cultural diversity of East Africa from earliest times to present. Emphasis on cultural and historical creation of categories, practices, and achievement of independence. P/NP or letter grading.

167C. History of Central Africa. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of history of central Africa from earliest times, with emphasis on establishment of agri- culture, economic development, and political regimes. P/NP or letter grading.


169A-169B. Thought and Society in China. (4–4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading. 169A. To 1000. Recommended preparation: course 11A. Elite and popular expressions of Chinese cultural life examined in readings and lectures. Focus on diversities of thought in classical Chinese thought and emergence of a distinctive Chinese tradition in social and political, and economic conditions.

169B. Since 1000. Recommended preparation: course 11B. Elite and popular expressions of Chinese cultural life from 1000 to 20th century. Emphasis on social, political, and economic conditions within which Chinese society and culture have been shaped and changed. Evaluation of iconoclasm of Chinese intellectual life in 20th century in light of earlier currents of thought.

170. Culture and Power in Late Imperial China. (4) Lecture, three hours; discussion, one hour (when scheduled). Recommended preparation: courses 11A, 11B. Designed for juniors/seniors. Analysis of relations of power and cultural expressions of dominance and resistance in late imperial China (1000 to 1700), with emphasis on interplay of economic forces, ideas, and social and political institutions. Examination of institu- tions of rule, family, kinship; institutions of folk culture, death, family, and social identity, love, sexuality, and private life. P/NP or letter grading.

170B. Selected Topics in Chinese History from 1500. (4) Lecture, three hours; discussion, one hour (when scheduled). Recommended requisite: course 11B. Designed for juniors/seniors. Selected topics that may vary from year to year. May include law and legal institutions; imperial courts and culture; society; and rural China. May be repeated for maximum of 16 units with topic and/or instructor change. P/NP or letter grading.

170C. History of Women in China, AD 1000 to Present. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Topics include women and family; women in Confucian ideology, women in literati culture, feminist movement, and women and communist revolution. P/NP or letter grading.

170D. 20th-Century China. (4) Lecture, three hours; discussion, one hour (when scheduled). Recommended preparation: course 11B. Designed for juniors/seniors. Political and social events and their effects on Chinese history, economic, and cultural development of China from 1900 to the present day. P/NP or letter grading.

170E. Economic History of China. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of development of Chinese economy and social, technological, intellec- tual, and political dynamics that produced distinctive patterns in evolution of China's economy from antiquity to present day. P/NP or letter grading.

171. Variable Topics in Japanese History. (4) Lecture, three hours; discussion, one hour (when scheduled). Recommended preparation: course 11B. Important topics in Japanese history, including political change, economic development, social issues, and popular culture, as well as current trends and art forms and extensive reading materials. May be repeated for maximum of 16 units with topic and/or instructor change. P/NP or letter grading.

172A. Japan—Ancient and Medieval History. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Political, economic, and cultural development of Japan from prehistory to 1600. P/NP or letter grading.

172B. Japanese History: Early Modern, 1600 to 1868. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Political, economic, and cultural development of Japan from 1600 to 1868. P/NP or letter grading.

172C. Modern Japanese History, 1850 to 1945. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Investigation of meaning of modern “Japan” for newly national (and imperial) Japan, and its impact on genealogies and political radical upheavals in daily experience, both in Japan and in Asia. Exploration of meaning of “modern” and fraught interplay of imperial and anti-imperial ambitions in domestic and foreign politics. World War II experience and radical and conservative effects of Allied Occupa- tion. Foregrounding of professional practice of history and historical creation of categories, practices, and perspectives that have become second nature (i.e., linear time, nation, and modern social norms).
also include gender, sexuality, aesthetics, fascism, eugenics and race, hygiene, bloodsucking, monsters, anarchism, time, colonialism, feminism, art, censorship, politics, and satire. A comic book can be seen as reflecting on and questioning place of women as embodiment of Indian culture; diasporic identities. P/NP or letter grading.

17A. Japanese Popular Culture. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of interplay of factors that, especially in terms of race and gender, between colonized and colonizers and to questions of resistance and nationalism. P/NP or letter grading.

174D. Indo-Islamic Interactions, 750 to 1940. (Same as Religion M174D.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Historical introduction to Muslim communities of what eventually became nations of India, Pakistan, and Bangladesh. Topics include political, legal, religious, and cultural history. P/NP or letter grading.

174E. Indo-Islamic Interactions, 1750 to 1940. (Same as Religion M174E.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of interplay of factors that, from Christian missionaries to Islamic madrasa schools and colonial rebellions, gave shape to multifaceted Muslim nation-state in context of colonial modernity. P/NP or letter grading.

174F. Gandhi and Making of Modern India. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of life and ideas of Mohandas (Mohandas K. Gandhi) and their impact on the modern India. P/NP or letter grading.

175A. Cultural and Political History of Contemporary South Asia. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Problem of modernity; partition of India and emergence of Pakistan; political, social, ecological, and women's movements; struggle for rights and contracts of identity among Muslims, Hindus, and Sikhs; terrorism in Sri Lanka and Punjab; public culture, popular cinema, and street life. P/NP or letter grading.

175B. History of Southeast Asia since 1815. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Revolution in Southeast Asia from 1815 to 1945, including the evolution of modern nation-states. P/NP or letter grading.

175C. Special Topics in Contemporary Indian History. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Topic may include identity and status, religious tolerance versus political and religious repression. May be repeated for maximum of 12 units with topic/instructor change. P/NP or letter grading.

176A. History of Southeast Asia to 1815. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Political and cultural history of peoples of Southeast Asia from earliest times to about 1815. P/NP or letter grading.

176B. History of Southeast Asia: Southeast Asia since 1815. (Same as Religion M176B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. History of modern Southeast Asia, with emphasis on exploration of evolution of national state, and economic, political, social, and cultural transformations. P/NP or letter grading.

176C. Philippine History. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Social, cultural, and political history of Philippine societies from Spanish conquest through independence. Emphasis on questions of identity under colonialism, understanding Revolutions of 1898 and 1898, and political and Philippine nationalist discourse. Readings include introduction to major issues in Philippine historiography and literature. P/NP or letter grading.

176E. Vietnam Past and Present. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of history and culture of Vietnam from about 700 BC to present, including political, social, and economic developments, as well as international relations in post-1954 period. P/NP or letter grading.

177A. National Histories of Southeast Asia. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Variable topics with focus on history of one or more of Southeast Asia's nation-states: Indonesia, East Timor, Thailand, Cambodia, Burma, Laos, Malaysia, Singapore, Brunei, Philippines, Vietnam. P/NP or letter grading.

177B. Comparative Histories of Southeast Asia. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Variable topics with focus on history of Southeast Asia from thematic or comparative perspective. Topics may include history of human rights in Southeast Asia, gender and sexuality in island Southeast Asia, and economic history of Southeast Asia. P/NP or letter grading.

177C. Introduction to History and Culture of Iranian Jews. (4) (Same as Jewish Studies M177C.) Lecture, three hours. Introduction to political, intellectual, and cultural history of Iranian Jews. Exploration of history of Iranian Jews from ancient period throughout history, with focus on post-Middle Ages to present time. Topics, studied from perspective of Iranian cultural history, include identity and status, religious tolerance versus forced conversion, Iranian Jewish emancipation, and dynamic symbiosis between Iranian Jews and other Iranians. P/NP or letter grading.

178A. Variable Topics in History of Medicine. (4) Lecture, three hours. Designed for juniors/seniors. Topics may include global health, biomedical technologies, and medicine andindsay, chinese medicine, psychology, mental illness, modern medicine, epidemiology and infectious disease. May be repeated for maximum of 16 units with topic/instructor change. P/NP or letter grading.

M176. Historical Perspectives on Gender and Science. (4) (Same as Gender Studies M176B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Historical perspectives on gender and science. Topics may include gendered conceptions of nature, persona of man of science, role of women in scientific development, science and technology, and science and society. P/NP or letter grading.

180A. Topics in History of Science. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Topics may include science and colonialism, science and religion, environmental history, science in Enlightenment, development of theory of evolution, science and public policy, and public engagement in science. P/NP or letter grading.


M181. Topics in Jewish History. (4) (Same as Jewish Studies M181.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of major issues in Jewish history. May be repeated for maximum of 48 units with topic/instructor change. P/NP or letter grading.
M181SL. Jewish Thought, Politics, and Ethics: From Theory to Practice. (4) (Same as Jewish Studies M181SL.) Lecture, three hours; fieldwork, two hours. Designated History of Los Angeles with special emphasis on pivotal roles Jews have played in shaping Los Angeles and role that Los Angeles has played in reshaping of Jewish identities, communities, and cultures. Exploration of themes related to contemporary historical texts. Opportunity to contribute to body of historical work related to Los Angeles Jewish history through required service work with community partners and development of digital public history projects. P/NP or letter grading.

M182A. Ancient Jewish History. (4) (Same as Jewish Studies M182A and Religion M182A.) Lecture, three hours; discussion, one hour (when scheduled). Designated for juniors/seniors. Survey of social, political, and religious developments. P/NP or letter grading.

M182B. Medieval Jewish History. (4) (Same as Jewish Studies M182B and Religion M182B.) Lecture, three hours; discussion, one hour (when scheduled). Designated for juniors/senior. Exploration of unfolding of Jewish Christianity to evolution of Jews from Spain in 1492. P/NP or letter grading.

M182C. Modern Jewish History. (4) (Same as Jewish Studies M182C.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of early modern Jewish history beginning with enormous repercussion of Jews from Spain in 1492, followed by transformations in Jewish society and identity over five centuries in Europe and Middle East, and concluding with nationalism. P/NP or letter grading.

M183A-183B. Third Reich and Jews. (4–4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading.

M184A. Jewish Civilization: Encounter with Great World Cultures. (4) (Same as Jewish Studies M184A and Religion M184A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of origins and historical development of anti-Semitism. P/NP or letter grading.

M184B. History of Anti-Semitism. (4) (Same as Jewish Studies M184B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Exploration of history of Judaism in Mediterranean world of 1st century CE as context of developing Christian movement. Topics include Pharisees, Qumran, Philo, Stoics, Epicureans, traditional Greek and Roman religions, mysteries, astrology, magic, gnosticism, and emperor-worship. P/NP or letter grading.

M185A. Jesus of Nazareth in Historical Research. (4) (Same as Religion M186A.) Lecture, three hours; discussion, one hour (when scheduled). Recommended preparation: course M185F. Designed for juniors/seniors. Exploration of history of Jesus of Nazareth in his social, economic, political, and religious contexts. P/NP or letter grading.

M185B. Religions of South and Southeast Asia. (4) Lecture, three hours; discussion, one hour (when scheduled). Topics vary from year to year and include Buddhism in India; religions of Java and Bali; non-territorial traditions of India and Southeast Asia; Consideration of wide range of cases and specific topics. May be taken independently for credit. P/NP or letter grading.

M185D. Religions of Ancient Near East. (4) (Same as Ancient Near East M185D and Religion M185D.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/senior. Topics vary from year to year and include Judaism in the Near East, with reference to religion of ancient Israel: varying concepts of divinity, hierarchies of gods, prayer and cult, magic, wisdom, and moral conduct. P/NP or letter grading.

M185E. Special Topics in History of Religions. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/senior. May be repeated for maximum of 16 units with topic and/or instructor change. P/NP or letter grading.

M185F. History of Early Christians. (4) (Same as Religion M186A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/senior. Christian movement from its origins to circa 160 CE, stressing its continuity/discontinuity with Judaism, and various responses to Jesus of Nazareth, written production during the period, movement’s encounter with its religious, social, and political world, and methods of research. P/NP or letter grading.

M185G. Religious Environment of Early Christians. (4) (Same as Religion M186B.) Lecture, three hours; discussion, one hour (when scheduled). Rich variety of religious and thought in Mediterranean world of 1st century CE as context of developing Christian movement. Topics include Platonists, Philo, Stoa, Epicureans, traditional Greek and Roman religions, mysteries, astrology, magic, gnosticism, and emperor-worship. P/NP or letter grading.

M186A. Women and Gender, Prehistory to 1792. (4) (Same as Gender Studies M186A.) Lecture, three hours; discussion, one hour (when scheduled). Recommended preparation: course M185F. Designed for juniors/senior. Exploration of history of women, gender, and sexuality from prehistory to 1792. First half deals with period before written history and asks when did gender appear? How and why did patriarchy develop? Designed for women’s bodies, appearance of gender, women’s contribution to Neolithic revolution, significance of Goddess art, facts, creation myths, and women and sexuality in different religions, especially in Native American, Hindu, and European conquest on Mesoamerican women, women’s power in monarchies, gender dimensions of Atlantic slavery, and first manifestations of feminist consciousness in second half. Offered by women when examined or read throughout. P/NP or letter grading.

M186B. Global Feminism, 1850 to Present. (4) (Same as Gender Studies M186B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/senior. Development of women’s rights (educational, political, economic, sexual, and reproductive) around world and over and one half centuries. P/NP or letter grading.

M187A-187M. Variable Topics Historiography Seminars. (4 each) Seminar, three hours. Seminars on historiography involving close reading and critical discussion of secondary scholarship and primary sources. Topic currently scheduled with course C200P; C167N, India. May be concurrently scheduled with course C200K; C187O, World. May be concurrently scheduled with course C200F; C167P. Theory of History. May be concurrently scheduled with course C200Q; C167R, Japan. May be concurrently scheduled with course C200M.

188A. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced co-requisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preperation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188B. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced co-requisite: course 188A. Designed for seniors. Exploration of history of Judaism in Mediterranean world of 1st century CE as context of developing Christian movement. Topics include Platonists, Philo, Stoa, Epicureans, traditional Greek and Roman religions, mysteries, astrology, magic, gnosticism, and emperor-worship. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

190A-190R. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

191A-191Q. Capstone Seminars: History. (4) Lecture, three hours. Designed for seniors. Limited to 15 students meeting with faculty member. Organized on topics basis with reading, discussion, and development of culminating project. May be repeated once for credit. P/NP or letter grading.

191A. Ancient History. (4) (Same as History M181M; Science/Tech- nology; 191M. Southeast Asia; 191Q. Digital History. History / 543
197. Individual Studies in History. (4) Tutorial, three hours. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Associated reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

198A. Honors Research in History. (4, tutorial), to be arranged. Requisite: course 198B. Limited to juniors/senior. Development of honors thesis or comprehensive research project under direct supervision of faculty member. May be repeated for maximum of 16 units. Individual contract required. Letter grading.

198B. Honors Research in History. (4), tutorial, to be arranged. Requisite: course 198A. Limited to juniors/seniors. Continued development of honors thesis or comprehensive research project under direct supervision of faculty member. May be repeated for maximum of 16 units. Individual contract required. In Progress grading (credit to be given only on completion of course 198C).

198C. Honors Research in History. (4), tutorial, to be arranged. Requisite: course 198B. Limited to juniors/senior. Completion of honors thesis or comprehensive research project under direct supervision of faculty member. May be repeated for maximum of 16 units. Individual contract required. Letter grading.

199. Directed Research in History. (4) Tutorial, three hours. Limited to juniors/seniors. Supervised individual research or analysis under guidance of faculty member. Culuminating paper or project required. May be repeated for credit; History majors limited to 8 units. Individual contract required. P/NP or letter grading.

Graduate Courses

200A-200U. Advanced Historiography. (4 each) Seminar, three hours. May be repeated for credit.
200A. Ancient Greece; 200B. Ancient Rome; 200C. Medieval; 200D. Europe; 200H. U.S.; 200J. Latin America; 200K. Near East; 200L. China; 200N. Africa; 200Q. Science/technology; 200R. Theory of History; 200T. Jewish History; 200S. Armenia and Caucasus; 200U. Psychohistory; 200F-200G. Topics in Historiography. (4 each) Seminar, three hours. Designed for graduate students. Prosemnaries on historiography involving close reading and critical discussion of secondary scholarship and primary sources on selected topics. Reading, discussion, and analytical writing are required in one or several historiographical essays. May be repeated for credit. S/U or letter grading.

200H. Indian History; 200I. China; 200M. Ancient Egypt; 200O. Ancient Greece; 200P. Ancient Rome; 200Q. Science/Technology; 200R. Theory of History; 200T. Jewish History; 200S. Armenia and Caucasus; 200U. Psychohistory; 200F-200G. Topics in Historiography. (4 each) Seminar, three hours. Designed for graduate students. Prosemnaries on historiography involving close reading and critical discussion of secondary scholarship and primary sources on selected topics. Reading, discussion, and analytical writing are required in one or several historiographical essays. May be repeated for credit. S/U or letter grading.

200A. Ancient Greece; 200B. Ancient Rome; 200C. Medieval; 200D. Europe; 200H. U.S.; 200J. Latin America; 200K. Near East; 200L. China; 200N. Africa; 200Q. Science/technology; 200R. Theory of History; 200T. Jewish History; 200S. Armenia and Caucasus; 200U. Psychohistory; 200F-200G. Topics in Historiography. (4 each) Seminar, three hours. Designed for graduate students. Prosemnaries on historiography involving close reading and critical discussion of secondary scholarship and primary sources on selected topics. Reading, discussion, and analytical writing are required in one or several historiographical essays. May be repeated for credit. S/U or letter grading.

200H. Indian History; 200I. China; 200M. Ancient Egypt; 200O. Ancient Greece; 200P. Ancient Rome; 200Q. Science/Technology; 200R. Theory of History; 200T. Jewish History; 200S. Armenia and Caucasus; 200U. Psychohistory; 200F-200G. Topics in Historiography. (4 each) Seminar, three hours. Designed for graduate students. Prosemnaries on historiography involving close reading and critical discussion of secondary scholarship and primary sources on selected topics. Reading, discussion, and analytical writing are required in one or several historiographical essays. May be repeated for credit. S/U or letter grading.

200H. Indian History; 200I. China; 200M. Ancient Egypt; 200O. Ancient Greece; 200P. Ancient Rome; 200Q. Science/Technology; 200R. Theory of History; 200T. Jewish History; 200S. Armenia and Caucasus; 200U. Psychohistory; 200F-200G. Topics in Historiography. (4 each) Seminar, three hours. Designed for graduate students. Prosemnaries on historiography involving close reading and critical discussion of secondary scholarship and primary sources on selected topics. Reading, discussion, and analytical writing are required in one or several historiographical essays. May be repeated for credit. S/U or letter grading.
C208A-C208B. Variable Topics: Interdisciplinary Studies. (4–4) Lecture, three hours; discussion, one hour (when scheduled). Course C208A is not requisite to C208B except for credit in all modern European history graduate students. Introduction to topics, methods, and historiography of modern European history.

226A-226B. Seminars: Italian Renaissance. (4–4) Seminar, three hours. Course 226A is requisite to 226B. In Progress (226A) and letter (226B) grading.

227A-227B. Seminars: Reformations. (4–4) Seminar, three hours. Course 227A is requisite to 227B. In Progress (227A) and letter (227B) grading.

229A-229B. Seminars: Early Modern European History. (4–4) Seminar, three hours. Course 229A is requisite to 229B. In Progress (229A) and letter (229B) grading.

M230A-M230B. Seminars: Modern European History. (4–4) Same as Art History M230B-M230C. Seminar, three hours. Course M230A is requisite to M230B. May be repeated for credit with consent of advisor. In Progress (M230A) and letter (M230B) grading.

231A-231B. Seminars: Modern European Intellectual and Cultural History. (4–4) Seminar, three hours. Course 231A is requisite to 231B. In Progress (231A) and letter (231B) grading.

232A-232B. Seminars: French History of 19th and 20th Centuries. (4–4) Seminar, three hours. Course 232A is requisite to 232B. In Progress (232A) and letter (232B) grading.

233A-233B. Seminars: Russian/Soviet History. (4–4) Seminar, three hours. Course 233A is requisite to 233B. In Progress (233A) and letter (233B) grading.

234A-234B. Seminars: Modern History of Spain, Portugal, and Italy. (4–4) Seminar, three hours. Course 234A is requisite to 234B. In Progress (234A) and letter (234B) grading.

235A-235B. Economic History of Europe, 1780 to 1919. (4–4) Seminar, three hours. Course 235A is requisite to 235B. Analysis of internationalization of European economy, emergence of Western core and its relation with European peripheries. Comparative analysis on different regions, stressing main characteristics of postwar European economy. In Progress (235A) and letter (235B) grading.

235C-235D. Economic History of 20th-Century Europe. (4–4) Seminar, three hours. Course 235C is requisite to 235D. Cyclic trend, various economic regimes, and integration process of Europe. In Progress (235C) and letter (235D) grading.

M236A. Proseminar: Political Psychology. (4) Same as Political Science M261A and Psychology M228A. Seminar, three hours. Introduction to political psychology: psychology and politics, political behavior, social movements, public opinion, voting, and elite decision making.

238B-238C. Seminars: Psychobiology. (4–4) Seminar, three hours. Course 238B is requisite to 238C. Exploration of individual and group psychological processes and their uses in historical research. In Progress (238B) and letter (238C) grading.

239A-239B. Seminars: English History—Middle Ages. (4–4) Seminar, three hours. Course 239A is requisite to 239B. In Progress (239A) and letter (239B) grading.

240A-240B. Seminars: English History—Modern History. (4–4) Seminar, three hours. Course 240A is requisite to 240B. In Progress (240A) and letter (240B) grading.

241A-241B. Seminars: German History. (4–4) Seminar, three hours. Course 241A is requisite to 241B. Designed for graduate students. In Progress (241A) and letter (241B) grading.


244A-244B. Seminars: British Empire History. (4–4) Seminar, three hours. Course 244A is requisite to 244B. In Progress (244A) and letter (244B) grading.

245. Colloquium: U.S. History. (4) Seminar, three hours. Normally limited to and required of all entering graduate students in U.S. history. Critical introduction to historical method, with emphasis on new methodological and conceptual approaches. Use of source materials, and current state of U.S. historiography.

246A-246B-246C. Introduction to U.S. History. (4–4) Seminar, three hours. Graduate survey of significant literature dealing with U.S. history from the Colonial period to the present. Each course may be taken independently for credit. In Progress (246A) and letter (246B) grading.

247A-247B. Seminars: Early American History. (4–4) Seminar, three hours. Course 247A is requisite to 247B. In Progress (247A) and letter (247B) grading.

M248. Anthropology and History of Mediterranean. (Same as Anthropology M248 and Near Eastern Languages M248) Seminar, three hours. Introduction to historical and anthropological writings about Mediterranean peoples on various topics and to contempo- rary theories, histories, and ethnographies about Mediterranean Sea. Topics include geographical and imaginary boundaries, Mediterranean honor/shame concepts, colonial and post-colonial Mediterranean, Levantinism, thalassology, Mediterraneanism, French Mediterraneans, Jewish Mediterranean, colonial and post-colonial Mediterranean, and Mediterraneans. Focus on critical history of anthropological study of Mediterranean and scholarly literature that emphasizes southern shores of Mediterranean. Letter grading.

249A-249B. Seminars: Jacksonian America. (4–4) Seminar, three hours. Course 249A is requisite to 249B. In Progress (249A) and letter (249B) grading.

250A-250B. Seminars: U.S. History of Middle 19th Century. (4–4) Seminar, three hours. Course 250A is requisite to 250B. In Progress (250A) and letter (250B) grading.

251A-251B. Collaborative Research Seminars: American History. (4–4) Seminar, three hours. Research seminars taught jointly by two faculty members. In Progress (251A) and letter (251B) grading.

251A. Research, writing, and critical discussion of individual research projects. 251B. Required: course 251A. Research, writing, and critical discussion of draft papers.

252A-252B. Seminars: Recent U.S. History to 1930. (4–4) Seminar, three hours. Course 252A is requisite to 252B. In Progress (252A) and letter (252B) grading.

253A-253B. Seminars: Recent U.S. History since 1930. (4–4) Seminar, three hours. Course 253A is requisite to 253B. In Progress (253A) and letter (253B) grading.

254A-254B. Seminars: U.S. Social and/or Intellectual History. (4–4) Seminar, three hours. Course 254A is requisite to 254B. In Progress (254A) and letter (254B) grading.

255A-255B. Business Enterprise and American Culture. (4–4) Seminar, three hours. Course 255A is requisite to 255B. In Progress (255A) and letter (255B) grading.

256A-256B. Seminars: America in World. (4–4) Seminar, three hours. Course 256A is requisite to 256B. In Progress (256A) and letter (256B) grading.

M256. Political Economy of Race. (4) Same as African American Studies M200B.) Seminar, four hours. Examination of historiography of history of capitalism and history of African diaspora, especially in their overlapping concerns with organization of race and racial states in contemporary world, development of modern imperialism—and emergence of global Black resistance to both. Themes and topics considered may include capitalism and question of slavery; law, regulations, and legal pluralism in organization of markets and nations; uneven development and nature of Black sovereignty; history of regimes of gender and sexuality in social and capital reproduction; modalities of capital accumulation and production of space; racial violence and territorial expansion; emancipation and growth of empire; history of finance capital and its discourses of debt; capitalism and history of anti-Blackness; racism, neoliberalism, and governmentality, and emergence and radical black tradition and its critiques of racial capitalism. S/U or letter grading.

257A-257B. Seminars: U.S. Urban History. (4–4) Seminar, three hours. Course 257A is requisite to 257B. In Progress (257A) and letter (257B) grading.
HONORS COLLEGIUM
College of Letters and Science
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Honors Collegium
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Maria (Maite) T. de Zubiaurre, PhD (European Languages and Transcultural Studies, Spanish and Portuguese)
Robert B. Goldberg, PhD (Molecular, Cell, and Developmental Biology)
Christina G. S. Palmer, PhD (Human Genetics, Psychiatry and Biobehavioral Sciences, Society and Genetics)
Zrinka Stahuljak, PhD (Comparative Literature, European Languages and Transcultural Studies)
Christopher C. Tilly, PhD (Sociology, Urban Planning)
Aaron Torrell, PhD (Economics)
Aradhna K. Tripati, PhD (Atmospheric and Oceanic Sciences; Earth, Planetary, and Space Sciences; Environment and Sustainability)

Overview
The Honors Collegium is a series of courses with an interdisciplinary emphasis designed for students enrolled in College Honors. It encourages animated discussion among students, as well as between students and professors and seeks to promote scholarly exchange across the major disciplines at UCLA. And it offers small classes and individual attention.

Each Honors Collegium course is staffed by a director who is distinguished in teaching and scholarship and may include a variable number of guest lecturers and additional specialists in their fields. Some courses satisfy general education requirements and serve as preparation for numerous majors in the College of Letters and Science. Counselors are available in the Honors Programs Office, A311 Murphy Hall, to advise and help students plan an integrated academic program.

Courses in the Honors Collegium are mainly in the humanities and social sciences disciplines. And it offers small classes and individual attention. Honors Programs Office, A311 Murphy Hall, to advise and help students plan an integrated academic program.

Courses in the Honors Collegium are mainly in interdisciplinary seminars, and the courses vary significantly. Students improve their own writing. May be repeated for credit. S/U or letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

490. Writing Workshop for Graduate Students. (4) Tutorial, three hours. Writing workshop on students' own work. May be repeated for credit. S/U grading.

501. Cooperative Program. (2 to 12) Preparation: consent of UCLA graduate adviser and graduate dean. Used to record enrollment of UCLA students in courses taken under cooperative arrangements with USC. S/U grading.

596. Directed Studies. (1 to 8) Limited to graduate students. Individual directed reading arranged with professor. MA candidates may take this course only once. Number of times PhD candidates may take this course is subject to consent of graduate studies committee. S/U or letter grading.

597. Directed Studies for Graduate Examinations. (1 to 8) Preparation for MA comprehensive examination or PhD qualifying examinations. S/U grading.

598. PhD Research and Writing. (1 to 8) Preparation: advancement to PhD candidacy. S/U grading.
1. Plague Culture. (5) Seminar, three hours. Study of episodes and metaphors of plague in Western culture from ancient times to the age of AIDS. Topics include scripture, ancient tragedy, Black Death, novelist realist, high aesthetic metaphors of plague, Nazi propaganda, existential and absurdist thought, postwar cinema, contemporary art, and modern science and medicine. P/NP or letter grading.

2. Comparative Genocide. (4) Lecture, four hours; discussion, one hour. Social comparative study of genocide, combining theoretical concepts with case studies (such as Armenia, the Holocaust, American Indians, Uganda under Amin and Obote, etc.). P/NP or letter grading.

3. Personal Brain Management. (5) Seminar, four hours. Designed for College Honors students. Exploration of various aspects of pathological human behavior and how they are portrayed in classic literary works. Focus on recurrent themes in history of human civilization. P/NP or letter grading.

4. Welcome to Dark Side: Human Pathology in World Literature. (5) Seminar, three hours. Designed for College Honors students. Exploration of various aspects of pathological human behavior and how they are portrayed in classic literary works. Focus on recurrent themes in history of human civilization. P/NP or letter grading.

5. Representing Cleopatra: History, Drama, and Film. (5) Seminar, three hours. Examination of legendary figure of Egyptian queen Cleopatra and her contemporaries and study of origins of myths about her and ways in which subsequent cultures and eras have imagined her. Study of Cleopatra's literary, visual, and cinematic representations. P/NP or letter grading.

6. Energy Issues: Before and Now. (5) Seminar, three hours. Review of physics and chemistry of concepts of energy, history over ages of turning of discoveries into products in this area, including use of fossil fuel, and discussion of current energy issues, including aggressive development of societies, evolution of revolutionary ideas and modern science and medicine. Science students learn innovative ways of presenting scientific data and design and discussion, media, and art students learn how to apply their skills to topics they might not usually address. P/NP or letter grading.

10. Language and Gender: Introduction to Gender Differences and Stereotypes. (5) Seminar, four hours; discussion, one hour. Designed for College Honors students. Examination of legacies of gender differences and stereotypes. P/NP or letter grading.

11W. Postmodern Literature and Culture. (5) Seminar, three hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Study of early and middle 20th-century's attempt to construct significance in a general climate of disillusionment by way of literature, literary criticism, and other intellectual movements. Satisfies Writing II requirement. Letter grading.

12. Sacred Form: Literature and Poetry in India from Bronze Age to Premodern Times. (4) Seminar, three hours. Enforced requisite: development of India from early religious poetry (prior to 1000 BC) to broad range of literary styles and diverse religious and philosophical movements through classical, medi eval, and premorden period. P/NP or letter grading.

13. Inquiry in Numbers. (5) Seminar, four hours. Preparation: high school algebra. Designed for College Honors students. Teaches nonmathematicians to love mathematics and to see mathematics as mathematicians do, not as means to end, but as beautiful and artful in its own right, including elementary number theory and study of whole numbers. Development of rich and elegant theory of prime numbers, factorization, and modular arithmetic. P/NP or letter grading.


18. Trial of Socrates. (5) Seminar, three hours. Examination of life and times of Socrates and trial that led to his execution, including in-class staging. P/NP or letter grading.

20. Introduction to History and Philosophy of Science. (5) Lecture, three hours; discussion, one hour. Exploration of difference between science and other systems of knowledge; study of history and philosophy of science and assessability as objective knowledge. P/NP or letter grading.

21W. Rise and Fall of Modernism. (6) Seminar, three hours; writing laboratory, two hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Study of early and middle 20th-century's attempt to construct significance in a general climate of disillusionment by way of literature, literary criticism, and other intellectual movements. Satisfies Writing II requirement. Letter grading.

23. Political Dissidence Today and in Ancient Greece: Trial and Death of Socrates in Its Classical and Legal Context. (5) Seminar, three hours. Study of trial and death of Socrates by examining its relevance to political treatment of dissent and disobedience in the U.S. and to variety of contemporary theories and strategies of dissent. Introduction to Greek legal system, values that animated that system, and new ways to think about roles of law. P/NP or letter grading.

24. We Could Be Heroes: Race, Gender, and the Contemporary Hero Narrative. (5) Seminar, four hours. Ways in which hero narratives represent and work through complex issues of race, gender, and identity. P/NP or letter grading.

25. Politics and Passion: Judgment, Justice, and Emotions. (5) Seminar, four hours. How to combine judgment and emotions without them standing in way of justice, including our ability to listen and respond to pain of others. What should govern our political lives? Should it be our reason or our emotions? Or is there some way to combine the two? Exploration of these questions through debates on place of emotions in politics, from ancient to contemporary thinkers within philosophical framework. P/NP or letter grading.

26. Representing Medicine: Art, Literature, and Film. (5) Seminar, four hours. Limited to Freshman Summer Program students. Exploration of interdisciplinary dimensions of medical representation, with emphasis on cross-cultural 20th-century portrayals of profession, including representations of patient and professional relations, healthcare sites and circumstances, aging, alternative treatments, and mental health. Offered in summer only. P/NP or letter grading.

27. Varied Mathematics. (5) Seminar, four hours. In-depth approach to mathematics and engineering topics. Ideas through stories from historical and anthropological sources. Simplification of topics that cause difficulties in traditional mathematics. Examples emphasize practical solutions. In place of terms used in mathematics, relevant views from popular culture,
including gambling, playing card games, and student contributions. Sources include computer, control, space, and other contemporary scientific issues, and reckoning from Latin America, South America, and Polynesia. P/NP or letter grading.

28. Material Culture and the Museum: Introduction to Collections-Based Research. (5) Seminar, three hours. Examination of relationship between people, objects, and the way that human behavior has historically and contemporaneously created and conceived of things and their use and importance in daily life and in performance of cultural identity. Consideration of questions including how past and present intersect, how people have made sense of world over time and space, and how objects, heritage, collections, and museums converge, diverge, and intersect. P/NP or letter grading.


30. Vietnamese American Culture. (4) Seminar, three hours. Cultural, social, and political implications of the Vietnam War on American society through examination of photography, journalism, personal narrative, political commentary, drama, and fiction. P/NP or letter grading.

31. Poets and Prophets: Back to Future with Ray Bradbury and Rod Serling. (5) Seminar, three hours. Exploration of various aspects of human condition and how they are portrayed through genre of science fiction. Examination of authors as both poets reflecting on social issues of their time, as well as prophets of future dystopia of human making. Reading texts of Ray Bradbury and viewing original screen episodes of Rod Serling’s Twilight Zone to see that these artists forecast some of pressing issues facing humanity today: climate change and threat of ecological and planetary collapse of our human habitat. Artistic works thus are as much cautionary tale as fantasy. Letter grading.

32. Scientific Method: Critical Inquiry into Question of Extraterrestrial Life. (4) Lecture, three hours; discussion, one hour. Course does not presume to answer question of whether or not there is intelligent life in the universe but rather uses this question as a pedagogic tool to introduce central ideas, techniques, and limitations of the scientific method—what questions would need to be asked, what scientific knowledge would be needed, and what obstacles would have to be overcome just to address this question. P/NP or letter grading.

33. Geographies and Idea of Home. (5) Seminar, three hours. Designed for College Honors students. Home is potent symbolic notion across eras and cultures, locale from which we depart and to which we may return. Broader notions of space, place, longing, belonging, exile, and return, and through lighter vibrant works of literature, film, and performance. P/NP or letter grading.

34. Science, Rhetoric, and Social Influence. (6) Seminar, four hours. Enforced requisite: English Composition 3 or English as a Second Language 36. Science writing, particularly scientific texts, both contemporary and historical, that have been used to communicate science to and influence large groups of people. What do these texts tell us about certain scientific texts that change way we think and have potential to affect social policy? Texts cover variety of topics from evolution to nutrition and food industry to current debates about climate change. Students encouraged to practice science writing themselves. Satisfies Writing II requirement. Letter grading.

44. Society of Excess: On Waste, Consumer Culture, and Environment. (5) Seminar, three hours. Designed for College Honors students. Examination of waste in both real and virtual worlds, looking in interdisciplinary ways at various cultural representations of trash set against backdrop of society of excess and environment constantly threatened by overflowing and mismanaged waste, including social and cultural responses to physical waste and cyber battle against Internet debris. P/NP or letter grading.

46. Drugs in Society: Interdisciplinary Perspective on Drug Use, Abuse, Treatment, and Intervention. (5) Seminar, three hours. Examination of drug use and abuse and consequent social issues and policies both historically and in the contemporary U.S., including discussion of current research on neurobiological properties of different drugs and corresponding clinical interventions. P/NP or letter grading.

48. Politics of Reproduction. (4) Seminar, three hours. Examination of political strategies and approaches to teaching (interdisciplinary, experiential, integrative, illustrative), ways of being (inclusive, self-awareness, curiosity, independence, resilience, generosity, diversity), and habits of innovation, creativity, innovation). Incorporation of empirical research and writing from different academic disciplines to help students understand rationales behind those approaches and associated applications for undergraduate learning. Students design e-portfolios. Students develop personalized roadmap to guide their academic, personal, and professional growth during their undergraduate careers. May be repeated for maximum of 10 units. P/NP or letter grading.

51. Music and Society. (5) Seminar, four hours. Minimal experience reading music desirable but not required. Analysis of Western art music, with focus primarily, but not exclusively, on music from the 10th through early-20th centuries through multiple analytical prisms: sociological, historical, political, and musical. P/NP or letter grading.

52. Literature and History of Utopias. (4) Seminar, three hours. Study of major utopian writings from Thomas More’s classical text to recent ecological and feminist utopian texts, with purpose of uncovering social, intellectual, and cultural landscapes underlying quest for a more perfect society. P/NP or letter grading.

57. Language, Performance, and Culture. (5) Lecture, three hours. Mixure of lecture and discussion on topic of language and its relationship to performance across cultural in 19th and 20th century. Focus on historical imagination as it is expressed in such writers as Flaubert, Sartre, and Samuel Beckett, and films such as His Girl Friday and Monkey Business. P/NP or letter grading.


548 / Honors Collegium
Vladimir Nabokov, Russian-American writer, teacher, translator, lepidopterist, and composer of chess problems. Nabokov's eclectic writings lend themselves well to the criticism — and often the understanding — of modern and contemporary literature.

Reading and writing about art and science is integrated and/or disconnected. Examining the role of poetry in social justice movements, the relationship among politics, rhetoric, and literature in the early evolution of the universe.

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Lecture, three hours; discussion, two hours. Not open to students with credit for Life Sciences 70. Historical and scientific study of genetic engineering in medicine, agriculture, and law. No prerequisites.

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105. Ancient Rome and the Monuments of Washing- 
ton, D.C. (5) Seminar, three hours. Designed for College Honors students. Examination of political order and questions of violence, power, lead- ership, and ideology through the reading of literary texts, specifically Iliad by Homer, Julius Caesar and Henry IV, Part 1 by Shakespeare, and Brothers Karamazov by Dostoevsky. P/NP or letter grading.

106. Shakespeare, Dostoevsky. (5) Seminar, three hours. Designed for College Honors students. Examination of male homosexuality, and the structure of war heroes (Revolutionary and Civil), monuments to honor veterans of Vietnam, Korea, and Second World War conflicts, and American presidential and letter grading.

107. Literature and Political Order: Homer, Shake- speare, Dostoevsky. (5) Seminar, three hours. Designed for College Honors students. Examination of political order and questions of violence, power, leadership, and ideology through the reading of literary texts, specifically Iliad by Homer, Julius Caesar and Henry IV, Part 1 by Shakespeare, and Brothers Karamazov by Dostoevsky. P/NP or letter grading.

108. Ancient Rome and the Monuments of Washing- 
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109. Living Consciously: Philosophy in Everyday Life. (5) Seminar, three hours. What do decisions you make and activities you take say about who you are? What does it look like when you consciously inform your everyday life with your own mindfully developed way of seeing world? Through readings, discussions, exercises, and writing, exploration of practice and en- suing results of living consciously. Students develop and articulate their personal philosophies through in- tensively and personally exploring various ways of thinking about and acting in world, and through ex- ploring how social world influences and creates philosophies by which we live (whether we know it or not). Letter grading.

110. Marxist and Post-Marxist Approaches to Cul- 
tural Studies. (4) Seminar, four hours. Examination of Marxist and post-Marxist approaches to theory of culture, including classic texts, theoretical and empirical works, and the Marxists roots of postmodernism. P/NP or letter grading.

111. Stress and Coping. (4) Seminar, four hours. Ex- amination of research and theory on stress and coping, with emphasis on physical and mental conse- quences of stress and moderators of both social support and personality in coping strategies. P/NP or letter grading.

112. Chemical Communication across Tree of Life. (5) Seminar, three hours. Designed for College Honors students. Examination of male homosexuality, and the structure of war heroes (Revolutionary and Civil), monuments to honor veterans of Vietnam, Korea, and Second World War conflicts, and American presidential and letter grading.

113. Hyperconnected World: Society and Internet. (5) Seminar, three hours. Designed for College Honors students. Exploration of social, political, economic, psychological, and cultural dimensions of our hyper- connected world via Internet. Topics include transforma- tions of social relationships online, virtual versus real communities, identity and its creations, trust and deception in cyberspace, surveillance, privacy, economics, intellectual property, culture, edu- cation, and knowledge, and digital wellness. P/NP or letter grading.

114. Architecture from Los Angeles: Work of Frank Gehry, Thom Mayne, and Greg Lynn. (5) Seminar, three hours. Within last 30 years, body of architectural work originating in Los Angeles but reaching world both in material construction and aesthetic influence has emerged. Study of works of three seminal archi- tects—Frank Gehry, Thom Mayne, and Greg Lynn. Site visits and hands-on practice in how to read archi- tectural plans and how to use computers and mod- eling in architectural study and design. P/NP or letter grading.

115. Poetry and Society in England, 1588 to 1688: 
Verse, Politics, Religion, and Sexuality from Spanish 
Armada to Glorious Revolution. (5) Seminar, three hours. Designed for College Honors students. Poetry of England in century between 1588 and 1688 through prism of evolving political, philosophical, theological, sexual, economic, and scientific practices of that day and vice versa—understand poetry in cultural and historical context. Students research a range of subjects from alchemy to zoology and become class resource on some relevant topic such as Renais- sance medicine, alchemy, scholasticism, Cromwell and New Model Army, Elizabethan foreign policy, Stuart architecture, agricultural and dietary changes, and printing and publishing conventions. P/NP or letter grading.

116. Art Abie: Art and Improvisation in Museums. (4) (Same as Theater M187.) Seminar, four hours. Of- fered in collaboration with Los Angeles County Mu- seum of Art (LACMA). Interpretation of art in collection through acting, dialogues, movement, and music. Re- search into history and art history and production of creative performance piece required. P/NP or letter grading.

117. London and Culture of Male Homosexuality, 1870s to 1930s. (5) Seminar, four hours. Designed for College Honors students. Examination of male homo- sexual subculture that thrived in London during period when brilliant Irish writer Oscar Wilde (1854 to 1900) was to face his own homosexuality in prejudice and dis- cregacy. Study of Wilde trials, cultural consequences of Labouche Amendment criminalizing male homo- sexual acts, some of Wilde’s writings, and exciting new writings that have come to light offering insight into links that gay men in London had with theatrical world, prostitution, aristocrats, and underground pub- lishing. P/NP or letter grading.

118. Paths of Patriarchy: Ancient Goddesses and He- roines. (4) (Same as Gender Studies M128.) Lec- ture, three hours. Examination of ancient goddessesses and heroines—European, Neolithic, Near Eastern, Celtic, Sumerian, Middle Eastern, and Greco-Roman—using translations of ancient texts, ar- chaeological evidence, and feminist methodology in order to discover implications of ancient patriarchy on modern society. P/NP or letter grading.

119. Hollywood and Cultural Diversity in America. (5) Seminar, three hours. Designed for College Honors students. Hollywood filmmakers often produce movies where characters confront societal issues such as social and political ideologies of discrimina- tion. So it is surprising to see recent media cov- erage that turns magnifying glass around and exposes Hollywood’s own severe problems when it comes to racial and cultural representation of differing media representations—how they occur, why they persist, and what they can teach about current racial divides in America. Examination of how Hollywood represents different races, cultures, and groups. P/NP or letter grading.

120. Art and Performance: Interdisciplinary App- ror to Collections of Getty Center. (4) (Same as 
 Theater M109s) Lecture, four hours; discussion, one hour. Drawing from objects in five major collections at Getty Museum, focus on five parallel historical periods in which political, social, and aesthetic philosophy of art is examined in musical and dramatic perfor- mance. Letter grading.

121. Psychoanalysis before Freud, and a Little After. (5) Lecture, three hours; discussion, one hour. Ex- amination of different ways human beings have devel- oped concepts of themselves through history from early civilizations through Middle Ages, Renaissance, Reformation, scientific revolution, Enlightenment, ori- gins of modern world, Freud’s C. de Sèvres Vienna, and post-Freudian visions. Investigation of the perspec- tives of these different cultures in present day. P/NP or letter grading.

122. Chemical Communication across Tree of Life. (5) Seminar, three hours; discussion, two hours. De- signed for College Honors students. Chemical com- munication governs relationships among most biologi- cal entities, across entire tree of life from viruses to Homo sapiens. Biosynthetic devices are using knowl- edge gleaned from chemosensory systems to change face of robotics, with wide applications in consumer industries, homeland security, and space exploration. Chemical, physical, and biological principles to be combined as pedagogical tools for teaching larger lesson in science. Synthesis of information and con- cepts across disciplines to develop student hypoth- eses and conclusions. P/NP or letter grading.


124. Midwives, Mothers, and Medicine: Perspec- tives on History of Childbirth. (4) Seminar, three hours. Using examples from history and anthropology, exam- ination of variety of practices associated with child- birth over time and across cultures, addressing such themes as shifting roles among birthing women, midwives, and medical men and cultural meanings of birth. P/NP or letter grading.

125. Communities and Nations in Conflict: Theory and Practice of International Conflict Resolution. (5) Lecture, three hours; discussion, one hour. Intro- duction to theory and practice, with emphasis on international conflict. Transitional justice mechanisms, from international criminal tribu- nales to national courts, and the International Criminal Court to indigenous approaches such as communitarian justice systems. Examination of environmental conflict reso- lution, homeland security and terrorism, role of gender in conflict, and role of media in conflict. P/NP or letter grading.

126. Waves of Resistance: Race, Empire, and Social 
Justice in Asia and Pacific Islands. (5) Seminar, three hours. Designed for College Honors students. Exam- ination of historical and contemporary representations of ra- cial violence, empire, and social justice in Asia and Pa- cific Islands. Global forces such as capitalism, colo- nialism, and globalization played significant role in cultural, economic, and political changes, such as American Samoa, Guam, Hawai’i, Marshall Islands, Philippines, Okinawa, and South Korea. Explo- ration of how various groups of people have re- sponded to these forces to have better understanding of how race, empire, and social justice have con- nected these distant and diverse areas and peoples. P/NP or letter grading.

127. Citizenship, Leadership, and Service. (4) Sem- inar, three hours; field trips and participatory study of interactions between citizen- ship, leadership, and service, including both theoret- ical work in classroom and practical work in service organizations in the field. P/NP or letter grading.

128. Humor as Means of Social Control. (5) Sem- inar, four hours. Designed for College Honors stud- ents. Application of venerable humanist insights and social scientific thinking to contemporary social phe- nomenon of human laughter and humor. While Arist- otle and Hobbes thought humor was bad for society, Locke and Bahaftian would have disputed them for dif- ferent reasons. Integration of their ideas and ideas of contemporary anthropology and sociology, as well as social and biological science, to critically evaluate how social scientists investigate mass media political satire and letter grading.

129. Research in Psychology and Legacy of John 
Wooden. (5) Seminar, four hours. Designed for Col- lege Honors students. Exploration of life and work of Coach John Wooden, with particular attention to his pyramid of success, how he was viewed and is re- membered by his players, and relationships between his philosophy and academic research. His philosoph- ical approach as lens through which to explore re- search in fields of sport psychology. Connects different elements of Coach Wooden’s pyr- amid of success (and other aspects of his coaching philosophy) to research in psychology. P/NP or letter grading.

130. Speeding the Cure: Activists, Experts, and 
Health Care. (5) Seminar, four hours. Study of how ac- tivists, experts, and political movements shape public-health policy and biomedical science. What are best
ways to confront health challenges, from rare diseases to pandemics? Analysis of scientific, medical, social, economic, and political aspects of health inequities, drug policies, and global health policy, as well as the role of scientific expertise in formulating goals and strategies. Topics include viruses and vaccines, rare diseases, aging, autism, AIDS, breast cancer, clean water, gun violence, and prostate cancer. P/NP or letter grading.

131. Gender, Globalization, and Multicultural Storytelling (5) Seminar, three hours. Exploration of evolution of postcolonial studies through contemporary works of multilingual American literature. How do our personal formations of identity developed through their experience of global human capital and local development are impacting poor countries and poor people who reside in rich and poor countries. Examination of how different countries have used education to promote socio-equality and development and analysis of why some countries appear to be making more progress than others. Consideration of how factors such as history, particularly related to colonialism, political economy, and culture affect character and performance of schools. P/NP or letter grading.

132. New Women and Activism from America to Asia (5) Seminar, three hours. Designed for College Honors students. Focus of academic activities and regional boundaries by looking at women’s movements in U.S. and East Asia in early 20th century, with examination of how issues of women’s rights, labor rights, suffrage, prostitution, and disabilities united and divided women across classes and national borders. Examination of suffrage movement in 1913 New York and parallel movements in East Asia (Japan, Korea, China) that shared some of these same ideas with their own unique historical circumstances. Use of highly successful Reacting to Past historical role-playing game titled Greenwich Village, 1913: Suffrage, Labor, and New Woman. P/NP or letter grading.

133. Practice and Ethics of Ethnographic Fieldwork (5) Seminar, three hours. Examination of ethics and practices of ethnographic fieldwork. This is not a field methods course in anthropology but one intended to convey rich knowledge fieldwork can produce in many disciplines and kinds of ethical issues raised in doing fieldwork. P/NP or letter grading.

134. Democracy and Utopias (5) Seminar, three hours. Designed for College Honors students. Political culture of modern democracy fosters idea of progress and constant reform and is also wary of radical upheavals. Political culture of ancient Greek democracy made notion of human achieved unmatched superiority over any other society and birth of utopia. Democracy praised itself as perfect form of government, but it let flourish counter-factual idea for absolute, just, and blissful political order. Examination of this paradoxical link between democracy and utopia by tracing its history in works of Aristophanes, Plato, Thomas More, Tommaso Campanella, Francis Bacon, and Charles Fourier to show relevance to contemporary politics. P/NP or letter grading.

135. Poetry and Society in England, 1588 to 1688 (3) Seminar, four hours. Reading and discussion of poems to comprehend meaning and place in configurations of rapidly transforming society. Tensions and changes in that culture, and lives of authors, these works helped negotiate. How and why metaphorical and cavalier modes emerge in period of intense struggle. Interplay of form, content, and meaning within these modes. Evidence offered about personal psychology, gender politics, and status of several of these works. P/NP or letter grading.

136. Art, Entertainment, and Social Change (5) Seminar, three hours. Integrative examination of evolving impact of arts and entertainment industry on various aspects of society, including politics, self-concept, and experience of everyday life, among others. P/NP or letter grading.

137. Living Drama in America: Perspectives on Race and Buddhism (5) Seminar, three hours. Deconstruction of and deeper histories behind images of Afro-American slaves; interactions with embossed monochrome; ornate, golden temples with scent of incense; serene Zen meditation centers; and popular Buddhists from Richard Gere to Thich Nhat Hanh to the Dalai Lama. P/NP or letter grading.

138. European Encounters, Globalization, and Multicultural Storytelling (5) Seminar, four hours. Exploration of evolution of postcolonial studies through contemporary works of multilingual American literature. How do our personal formations of identity developed through their experience of global human capital and local development are impacting poor countries and poor people who reside in rich and poor countries. Examination of how different countries have used education to promote socio-equality and development and analysis of why some countries appear to be making more progress than others. Consideration of how factors such as history, particularly related to colonialism, political economy, and culture affect character and performance of schools. P/NP or letter grading.

139. Confucianism and His Legacies (5) Seminar, four hours. Examination of Confucian tradition, from Warring States period to popularization in 21st century. Society in which Confucius (551—479 BCE) lived. Study of Analects as core text of Confucianism. Confucius and his successors offered a new set of social relationships. Importance and impact of Confucius on Chinese and Asian culture. P/NP or letter grading.

140. Domains and Subordinates in Social Psychology of Privilege and Oppression in Public Education (6) Lecture, four hours; computer laboratory, one hour. Exploration of social behavior through computer simulations of human genomic project, comparative and functional genomics, transcriptomics, proteomics, pharmacogenomics, and metabolomics. P/NP or letter grading.


142. Free Will and Moral Responsibility: From Neuroscience to Philosophy (5) Seminar, four hours. Survey of motivations, methods, and conclusions of neuroscientific and psychological investigations of free will. Consideration of neuroscientific arguments that human beings are not free when they choose and philosophical arguments about what is required for freedom and what is required for responsibility. Discussion of extent to which philosophical investigations of free will are supported by experiments and how experiments could be designed and carried out to better correspond with philosophical and legal debate on free will. P/NP or letter grading.

M143. Latinx Immigration History and Politics (4) (Same as Chicana/o and Central American Studies M124.) Lecture, four hours. Critical introduction to U.S. immigration policies and politics, and their disproportionate impacts on Latinx community. Topics include some of root causes of Latin American migration; federal, state, and local immigration lawmaking; and how race, gender, and sexuality impact and are impacted by immigration. P/NP or letter grading.

144. International Development: Using Your Major For Doing Well and Doing Good (5) Seminar, three hours. The adoption of the internationally sustainable Development Goals (2015) called for addressing extreme poverty, disease, environmental degradation, gender inequities, unemployment, and other problems afflicting people. Sustainability enforces development solutions that endure and engage local people. The aim is to leverage local capacities to improve living conditions substantially. Students address questions such as whether your major relates to one or more of the goals? Which goal speaks to your interest? What key concept or passion do you have that can contribute to addressing one or more of the goals? P/NP or letter grading.
163. China’s Rise: Critical Issues and Global Implications. (5) Seminar, four hours. Study of ascendency of China in 21st century, with emphasis on global implications and how it may change, as background to understanding conditions under which leaders can make differences. Compari-
son of political leaders, business chief executive offi-
cers, sports coaches, and religious leaders. Letter grading.

155. Disease and Human Condition. (5) Seminar, four hours. Discussion and analysis of COVID-19. Ex- ploration of scientific characteristics and historical manifesta-
tions of disease; how diseases have shaped civilization: bubonic plague, smallpox, yellow fever, tuberculosis, cholera, influenza, polio, hernias, and non-Human/Non-Mammal Animal Relationships. (5) Seminar, three hours. Exploration of intimate and changing relationship between human and non-human animals. Examination of how we con-
ceptualize animals: as companions, food, workers, repre-
sentatives of self, and more; rights—or lack thereof—of animals; our animal industries: factory farming, shelters and rescues, animal workers, entre-
tainment forms, racing, hunting, medical research, and more; boundaries between human and non-
human animals; violence against animals, both indi-
vidualized and institutionalized; animals as concept; and social construction the difference between human and non-human animals. Letter grading.

165. Privacy versus National Security. (5) Seminar, four hours. Designed for College Honors students. Ed-
ward Snowden’s disclosures of extent of government surveillance conduces to the question: Is the National Security Agency’s program justified? What is the proper balance between privacy and national security in infor-
mation gathering? The constitution guarantees—values and moral responsibility, complicated by public fear, competing commercial interests, and interna-
tional legal and diplomatic quandaries. P/NP or letter grading.

166. Stories of Cultural Distance and Imposed Assimi-
lation. (5) Seminar, three hours. Interdisciplinary ap-
proaches to study of Los Angeles and its rise as global metropolis. Focus on art, architecture, literature, and other forms of cultural expression rooted in diverse communities of Los Angeles. P/NP or letter grading.


178. Secret Coups, Imperial Wars, and American Technology as well as social implications of this science. P/NP or letter grading.

176A. Context of Arab World: Cairo and Alexandria. (4) Seminar, three hours; fieldwork, eight hours. Em-
focused prerequisite: course 176B. Introduction to some key political developments in the Arab world, with special focus on Cairo and Alexandria. Offered in summer only, P/NP or letter grading.

176B. Reading Arab World: Cairo and Alexandria. (4) Seminar, four hours; fieldwork, eight hours. En-
focused prerequisite: course 176B. Introduction to some of most salient literature in contemporary Arab world, with focus on Cairo and Alexandria. Offered in summer only, P/NP or letter grading.

177. Biotechnology and Art. (5) Seminar, six hours. Examination of biotechnology, contemporary issues, and living tissues to bring to life ethical, social, and aes-
thetic issues of sciences. Study of how biotech blurs distinctions between science and art through combin-
ation of artistic and scientific advancement, creating wide public debate. Exploration of history of biotech-
nology as well as social implications of this science. P/NP or letter grading.

178. Secret Coups, Imperial Wars, and American Democracy since World War II. (5) Seminar, three hours. Study of U.S. involvement, both covert and overt, in expeditionary wars since World War II, in-
cluding involvement in Vietnam, Korea, Cuba, Iran,
Guatemala, Nicaragua, and Chile, and implication of these actions for vitality of American democracy. P/NP or letter grading.


M180. Structure, Patterns, and Polyhedra. (5) Same as Chemistry M117.) Lecture, four hours; activity, two hours. Exploration of structures and their geometric underpinnings, with examples and applications from architecture (space frames, domes), biology (enzyme complexes, viruses), chemistry (symmetry, molecular cages), design (tiling), engineering (space filling), and physics (crystal structures) to effect working knowledge of symmetry, two-dimensional patterns, and three-dimensional solids. P/NP or letter grading.

182. From Scientific Revolution to Industrial Revolution. (5) Seminar, four hours. Designed for College Honors students. Examination of most important development in making of Western power and hegemony: rise of new science and its relationship first to Britain, then European, Industrial Revolution. Once seen as solely product of material factors such as abundance of high wages, and available labor, Industrial Revolution is shown as also possessing critically important knowledge of components, one scientific culture derived from Newtonian science and mechanics, P/NP or letter grading.

M183. Being Human: Identity and Mental Illness. (5) (Same as Disability Studies M183 and Society and Genomics M183.) Seminar, three hours. Exploration of relationship between identity and mental illness through different approaches to nature and treatment of mental disorder, from biomedical accounts of brain-based pathology (and identity) to Mad Pride movement emphasizing mental diversity. Enduring philosophical questions regarding personal identity, consciousness, selfhood and mind-body relationship are investigated through consideration of conditions such as dissociative identity disorder, trauma, psychosis, autism, and depression. P/NP or letter grading.

184. Indian and Pakistan: Historic Roots of Conflict and Prospects for Cooperation. (5) Seminar, three hours. Designed for College Honors students. History of India and Pakistan from demise of British India’s Empire in mid-August 1947, with inept partition of India and Pakistan from demise of British India’s Empire. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

189A. Journal Club Seminars. (2) Seminar, two hours; discussion, two hours. Study of key research journals and important research articles. Presentations by program faculty members and other leading researchers. May be repeated for credit. P/NP grading.

193A. Journal Club Seminars: Arts and Humanities Summer Research Program. (2) Seminar, one hour; discussion, one hour. Limited to students selected for Humanities Summer Research Program. Study of humanities research journals and monographs. Weekly student research reports and presentations by humanities faculty members. May be repeated for credit. P/NP grading.

193C. Journal Club Seminars: Mellon Mays Undergraduate Research Scholarships. (2) Seminar, one hour; discussion, one hour. Limited to Mellon Mays undergraduate fellows. Study of key research journals and important research articles in arts, humanities, and social sciences. Weekly research reports and presentations by Mellon Mays students. Presentations by program faculty members and other leading researchers. P/NP grading.

199. Directed Honors Studies. (4) Tutorial, two hours; preparation: minimum of 4 units completed in Honors College with grade of B or better, overall UCLA grade-point average of 3.0 or better. Special research/writing tutorial with director of one Honors College course to pursue in greater depth significant topics from one collegium course. May be repeated for credit. P/NP or letter grading.

HUMAN GENETICS
David Geffen School of Medicine
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Human Genetics
310-794-5423
Leonid Kruglyak, PhD, Chair

Faculty Roster
Professors
Daniel J. Benjamini, PhD
Paul C. Boutros, PhD
Manish J. Butte, PhD
Esteban C. Dell’Angelica, PhD
Eleazar Eskin, PhD
Jonathan F. Flint, MD, in Residence (Billy and Audrey Wilder Endowed Professor of Psychiatry and Neurosciences)
Brent L. Fogel, MD, PhD, in Residence (Maggie G. Gilbert Endowed Professor of Bipolar Disorders)
Daniel H. Geschwind, MD, PhD, in Residence (Gordon and Virginia MacDonald Distinguished Professor of Human Genetics)
Michael B. Gorin, MD, PhD (Harold and Pauline Price Professor of Ophthalmology)
Wayne W. Grody, MD, PhD
Eran Halperin, PhD
Deborah Krakow, MD
Leonid Kruglyak, PhD
Kenneth L. Lange, PhD (Maxine and Eugene Rosenfeld Endowed Professor of Computational Genetics)
Jingyi Jessica Li, PhD
Kirk E. Lohmueller, PhD
Aldons J. Lusis, PhD
Stanley F. Nelson, MD, in Residence (Dr. Allen and Charlotte Ginsburg Endowed Professor of Translational Genomics)
Roel A. Ophoff, PhD, in Residence
Pai E. Pajukanta, MD, PhD (Diller-von Furstenberg Family Endowed Professor of Precision Clinical Genomics)
Christina G.S. Palmer, PhD, in Residence
Matteo Pellegrini, PhD
Joseph R. Pisegna, MD, in Residence
Karen Reue, PhD
Jerome I. Rotter, MD, PhD, in Residence
Marc A. Suchard, MD, PhD
Stephen G. Young, MD (Edward W. Carter Professor of Internal Medicine)

Professors Emeriti
Rita M. Cantor, PhD
Stephen D. Cederbaum, MD
Guoping Fan, PhD
Richard A. Gatti, MD (Rebecca Smith Professor Emeritus of A-T Research)

Associate Professors
Julian A. Martinez-Agosto, MD, PhD
Bogdan Pasaniciuc, PhD
Sriram Sankararaman, PhD
Noah A. Zaitlen, PhD

Assistant Professors
Valerie A. Arboleda, MD, PhD
Michael J. Gandal, PhD, in Residence
Nandita R. Garud, PhD
Chongyuan Luo, PhD
Loes M. Olde Lohuis, PhD, in Residence
Michael F. Wells, PhD
Yi Yin, PhD

Adjunct Professors
Jeanette C. Papp, PhD
Eric M. Sobel, PhD

Adjunct Assistant Professor
Rebecca L. LeShay Araujo, MS, CGC

Overview
The goal of the graduate program is to train the next generation of leaders in human genetics. This broad and rapidly evolving field of research incorporates multiple areas of modern experimental biology (including but not limited to molecular and behavioral genetics, epigenetics, biochemistry, cell and developmental biology, imaging, and large-scale omics approaches such as genomics, transcriptomics, and functional genomics) and of computational biology (including bioinformatics and biostatistics). In their research, students tackle Mendelian diseases and genetically complex traits of key relevance to human health.

A wide variety of courses is offered to equip future independent researchers with fundamental knowledge about state-of-the-art methods for generating experimental data on a genome-wide scale and computational and statistical approaches to draw from the data sound con-
Human Genetics Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

CM113. Ethical, Legal, and Societal Topics in Genetic Counseling. (2) (Same as Sociology and Cultural Anthro. 113.) Lecture, two hours. Discussion of social, cultural, ethical, and legal issues in genetics and genetic counseling. Concurrently scheduled with course C243. Letter grading.

CM124. Machine Learning Applications in Genetics. (4) (Same as Computer Science CM124.) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: Computer Science 32 or Program in Computing 100C with grade of C- or better, Mathematics 33A, and one course from Civil Engineering 110, Electrical and Computer Engineering 131A, Mathematics 170A, Mathematics 170E, or Statistics 106A. Designed for engineering students as well as students from biological sciences and medical school. Introduction to computational analysis of genetic variation and computational interdisciplinary research in genetics. Topics include introduction to genetics, identification of genes involved in disease, inferring human population history, technologies for obtaining genetic information, and genetic sequencing. Focus on formulating interdisciplinary problems and then solving those problems using computational techniques from statistics and computer science. Concurrently scheduled with course CM224. Letter grading.

CM136C. Societal and Medical Issues in Human Ge- netics. (5) (Same as Society and Genetics M102.) Lecture, three hours; discussion, two hours. Survey of key technologies and societal implications of genetic technology. Topics include introduction to genetics, identification of genes involved in disease, inferring human population history, technologies for obtaining genetic information, and genetic sequencing. Focus on formulating interdisciplinary problems and then solving those problems using computational techniques from statistics and computer science. Concurrently scheduled with course CM236C. Letter grading.

C144. Genomic Technology. (4) Lecture, three hours; discussion, one hour. Requisite: Life Sciences 4. Survey of key technologies that have led to successful application of genomics to medicine with focus on theory behind specific genome-wide technologies and their current applications. Concurrently scheduled with course C244. Letter grading.

188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topics, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SB. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: course 188SA. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to finalize course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced corequisite: course 188SB. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE 88S course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

199. Special Studies in Human Genetics. (2 to 8) Tutorial, to be arranged. Students select instructor among eligible research faculty and carry out independent research project under instructor supervision. P/NP or letter grading.

Graduate Courses

M203. Stochastic Models in Biology. (4) (Same as Biostatistics M203.) Lecture, four hours. Required: Mathematics 170A or equivalent experience in probability. Mathematical description of biological relationships, with particular attention to areas where conditions for deterministic models are inadequate. Examples of stochastic models from genetics, physiology, ecology, and variety of other biological and medical disciplines. S/U or letter grading.

M207A. Theoretical Genetic Modeling. (4) (Same as Biostatistics M207A and Biostatistics M207B.) Lecture, three hours; discussion, one hour. Requisites: Mathematics 115A, 131A, Statistics 100B. Mathematical models in statistical genetics. Topics include population genetics, genetic epidemiology, gene mapping, design of genetics experiments, DNA sequence analysis, and molecular phylogeny. S/U or letter grading.

M207B. Applied Genetic Modeling. (4) (Same as Bio- mathematics M207B and Biostatistics M237.) Lecture, three hours; laboratory, one hour. Requisites: Biostatistics 205B, 206B (may be taken concurrently) or equivalent coursework or consent of instructor. Covers basic genetic concepts (prior knowledge of human genetics not required). Topics include statistical methodology underlying genetic analysis of both quantitative and qualitative complex traits. Laboratory for hands-on computer analysis of genetic data; laboratory report required. Course complements M207A; students may take either and are encouraged to take both. S/U grading.

210. Topics in Genomics. (2) Seminar, two hours. Survey of current biological theory and technology used in genomic research. Topics include genomic technologies, functional genomics, proteomics, statistical genetics, bioinformatics, and ethical issues in human genetics. S/U grading.

M211. Mathematical and Statistical Genomics. (4) (Same as Bioinformatics M211 and Biostatistics M211.) Lecture, three hours; discussion, one hour. Preparation: undergraduate course in statistics and probability. Theoretical models in molecular evolution focusing on phylogenetic techniques. Topics include evolutionary tree reconstruction methods, studies of viral evolution, phylogeography and coalescent approaches. Examples provided from evolutionary biology and evolutionary medicine, with unique focus on implications for human disease processes. Laboratory for hands-on computer analysis of sequence data. S/U or letter grading.

CM224. Machine Learning Applications in Genetics. (4) (Same as Bioinformatics CM224 and Computer Sci- ence CM224A.) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: Computer Science 32 or Program in Computing 10C with grade of C- or better, Mathematics 33A, and one course from Civil Engineering 110, Electrical and Computer Engineering 131A, Mathematics 170A, Mathematics 170E, or Statistics 106A. Designed for engineering students as well as students from biological sciences and medical school. Introduction to computational analysis of genetic variation and computational interdisciplinary research in genetics. Topics include introduction to genetics, identification of genes involved in disease, inferring human population history, technologies for obtaining genetic information, and genetic sequencing. Focus on formulating interdisciplinary problems and then solving those problems using computational techniques from statistics and computer science. Concurrently scheduled with course CM224. Letter grading.

Graduate Majors

Genetic Counseling MS

Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Human Genetics MS, PhD

The program offers the MS and PhD degrees; graduate study leading to a PhD degree is emphasized. Under special circumstances, and only after consultation with and approval by the Department of Human Genetics, individuals may apply for admission to the MS program.

Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Articulated Degree Programs

Articulated degree programs permit no credit overlap; students must complete degree requirements separately for each degree.

- Human Genetics PhD/Doctor of Medicine
those problems using computational techniques from statistics and computer science. Concurrently scheduled with course CM124. Letter grading.

M226. Machine Learning in Bioinformatics. (4) (Same as Bioinformatics M226 and Computer Science M226.) Lecture, four hours; outside study, eight hours. Enforced requisite: Computer Science 32 or Program in Computing 10C with grade of C– or better. Recommended: one course from Biostatistics 100A, 110A, Civil Engineering 110, Electrical and Computer Engineering 131A, Mathematics 170A, or Statistics 100A. Familiarity with probability, linear algebra, and algorithms expected. Designed for engineering students as well as students from biological sciences and medical school. Biology has become data-intensive science. Bottle-neck in being able to make sense of biological processes has shifted from data generation to statistical models and inference algorithms that can analyze these datasets. Statistical machine learning provides important toolkit in this endeavor. Biological datasets offer new challenges to field of machine learning. Examination of statistical and computational aspects of machine learning techniques and their application to key biological questions. Letter grading.

M229S. Seminar: Current Topics in Bioinformatics. (4) (Same as Biological Chemistry M229S and Computer Science M229S.) Seminar, four hours; outside study, eight hours. Designed for graduate engineering students as well as students from biological sciences and medical school. Introduction to current topics in bioinformatics, genomics, and computational genetics and preparation for computational interdisciplinary research. Focus on genomic analysis, regulatory genomics, association analysis, association study design, isolated and admixed populations, population substructure, human structural variation, model organisms, and genomic technologies. Computational techniques include those from statistics and computer science. May be repeated for credit with topic change. Letter grading.

236A. Advanced Human Genetics: A Molecular Aspects. (4) Lecture, three hours. Recommended preparation: prior knowledge of basic concepts in molecular biology and genetics. Advanced topics in human genetics related to nucleic genetics, and relevant technologies. Topics include genomic technologies, human genome, mapping and identification of disease-causing mutations, transcriptomics, proteomics, functional genomics, epigenetics, and stem cells. Reading materials include original research articles and reviews or book chapters. Letter grading.

236B. Advanced Human Genetics: B Genetics and Genomics Aspects. (4) Seminar, four hours; discussion, four hours. In this course, human genetics is fundamental scientific field that studies inheritance in humans and therefore also has immediate practical value for human health and disease. Identification of genes and genetic variation involved in human diseases, traits, and behavior is one of main goals of human genetic studies. Genomic technologies are rapidly advancing and allow for comprehensive and in-depth analysis of human genome. Covers different themes in field of human genetics, including genetics of monogenic disorders, genetic mapping of complex traits, transcriptome analysis, and epigenomic studies of human disease. Course includes discussion of key topics in three-course series. Focus on medical approaches to clinical genetics. Topics include molecular basis of genetic disease, modes of inheritance, principles of cytogenetics, molecular techniques, disorders of chromosomes, and fundamentals of prenatal diagnosis and screening. Addresses application of medical and genetic information to genetic counseling scenarios, examinations, and written reflections. Grand Rounds/Seminar series attendance is required component. Letter grading.


400C. Principles and Practices in Medical Genetics 3. (3) Lecture, three hours. Limited to Genetic Counseling students, and open to medical genetics, molecular and cytogenetics fellows with permission. Third course in three-course series. Focus on medical approaches to clinical genetics, principles of mathematical and population genetics, multifactorial inheritance, risk assessment, teratology and dysmorphology. Addresses application of medical and genetic information to genetic counseling. Includes lectures, problem-based learning scenarios, examinations, and written reflections. Grand Rounds/Seminar series attendance is required component. Letter grading.

400D. Principles and Practices in Medical Genetics 4. (4) Lecture, four hours. Required: at least four hours’ observationshadowing at one or more clinical centers and at least four hours observing bereavement groups in past year. Limited to Genetic Counseling students. Focus on advanced psychosocial topics in genetic counseling along with social and legal issues in genetics and genetic counseling. Topics
including family dynamics, burden of disease, crisis intervention, dynamics of grief and bereavement, multicultural sensitivity, coping mechanisms, transference and countertransference, and disability organizations and advocacy. Practice exercises include role-playing in a range of advanced psychosocial situations, shadowing support groups and families, simulating patient full session under different scenarios including with intervention interpretations. Letter grading.

405. Professional Development in Genetic Counseling. (4) Lecture, four hours. Limited to Genetic Counseling students. Focus on professional development as genetic counselors are prepared to make the transition to practicing professionals in areas of job search, billing/insurance/coverage, service delivery, professional relationships and boundaries, clinical supervision experiences, and working with clients. Letter grading.


410. Translational Genomics. (3) Lecture, two hours. Limited to Genetic Counseling students, and open to medical genetics, molecular and cytogenetics fellows with permission. Introduction to next generation sequencing pipelines and bioinformatics pipelines for analyzing NGS data, clinical interpretation of variants using ACMG guidelines, various databases used for variant interpretation, interpretation of exome clinical reports, interpreting results to patients and families, and social, legal, and ethical implications of ELSI of genetic counseling. Hands-on laboratory-style experience to interpreting human exome/ge- nome variants for genetics professionals and trainees. Students acquire knowledge background to understand the technical and analytical aspects of exome/ge- nome test, make informed decisions about clinically relevant variants, and communicate results to patient or patient’s family. Attendance at weekly Genome Data Board meeting is required. Letter grading.

411. Foundations in Genetic Counseling Research. (2) Lecture, two hours. Limited to Genetic Counseling students. First of two-course series. Overview of research process, including literature review, research design, measurement methods, qualitative methods, and quantitative methods. Includes theory and elements of literature, data coding, data analysis tools, and interpretation of statistical results. Introduction to necessary tools to understand published research in genetic counseling and foundations necessary for design and conduct, and interpretation of their dissertation project. How to conduct human subjects research responsibly and understand informed consent process. Letter grading.

412. Research Applications in Genetic Counseling. (2) Lecture, two hours. Enforced requisites: course 411. Limited to Genetic Counseling students. Second of two-course series. Practical hands-on approach to conducting research. Offers more focused discussion on specific areas of research design and quantitative research. Students need to develop and conduct their capstone project and research in genetic counseling. Students brainstorm ideas for their capstone project, develop research questions, design and writing of MS thesis. May be repeated for credit. S/U grading.

413E. Ethical, Legal, and Societal Topics in Genetic Counseling. (2) Formerly numbered 413.) Lecture, two hours. Limited to Genetic Counseling students. Discussion of social, cultural, ethical, and legal issues in genetics and genetic counseling. Concurrently scheduled with course CM113. Letter grading.

414. Genetic Counseling Communication Seminar. (1) Seminar, one hour. Limited to Genetic Counseling students. Topics in communicating genetic counseling. A one-hour seminar to diverse audiences using various communication modalities, with emphasis on crafting presentations for health care, public, and advocacy audiences. Includes critical reading, review, and discussion of literature in context of creating effective communication for genetic counseling, medical management, genetic counseling, and genetics laboratory testing. S/U grading.

430. Clinical Applications of Cytogenetics and Molecular Techniques. (1) Lecture, one hour. Cyto- genetics and molecular laboratory techniques to diagnose human genetic disorders. Topics include types of abnormalities seen in human genetic disorders, patho- logical consequences associated with these abnormalities, recurrence risk, uses and limitations of common cytogenetic and molecular technologies in clinical testing, current nomenclature, and written components of laboratory reports. Includes laboratory tours. Letter grading.

431A. Fieldwork. (1) Fieldwork, three to four hours. Discussion, one hour. Limited to Genetic Counseling Students. First fieldwork rotation to establish basic skill sets of Genetic Counseling Students. Students are supervised by certified genetic counselors and medical geneticists. In group discussion setting, students present cases along with relevant psychosocial, ethical, and professional issues to engage in active reflection of clinical supervision experiences, understand dynamics and responsibilities of supervisor/supervisee relationship, and identify personal growth opportunities and limitations in scope of patient practice. S/U grading.


431C. Fieldwork. (5) Fieldwork, 15 to 20 hours; discussion, one hour. Limited to Genetic Counseling Students. Students use progressive genetic counseling skills with direct patient contact in different clinical settings. Students are supervised by certified genetic counselors and medical geneticists. In group discussion setting, students present cases along with relevant psychosocial, ethical, and professional issues to engage in active reflection of clinical supervision experiences, understand dynamics and responsibilities of supervisor/supervisee relationship, and identify personal growth opportunities and limitations in scope of patient practice. S/U grading.

431D. Fieldwork. (5) Clinical, 15 to 20 hours; discussion, one hour. Limited to Genetic Counseling Students. Students utilize progressive genetic counseling skills with direct patient contact in different clinical settings. Students are supervised by certified genetic counselors and medical geneticists. Students see complex cases, and activities include follow-up activities on genetic test orders, referrals, resources, explaining genetic test results to patients, presenting cases at relevant case conferences, follow-up of action items from case conference, and exploring and addressing psychosocial aspects of patient encounters. Responsibility for conducting genetic counseling session from beginning to end. In group discussion setting, students present cases along with relevant psychosocial, ethical, and professional issues to engage in active reflection of clinical supervision experiences, understand dynamics and responsibilities of supervisor/supervisee relationship, and identify personal growth opportunities and limitations in scope of patient practice. S/U grading.

431E. Fieldwork. (5) Clinical, 15 to 20 hours; discussion, one hour. Limited to Genetic Counseling Students. Students use progressive genetic counseling skills with direct patient contact in different clinical settings. Students are supervised by certified genetic counselors and medical geneticists. Students see complex cases, and activities include follow-up activities on genetic test orders, referrals, resources, explaining genetic test results to patients, presenting cases at relevant case conferences, follow-up of action items from case conference, and exploring and addressing psychosocial aspects of patient encounters. Responsibility for conducting genetic counseling session from beginning to end. In group discussion setting, students present cases along with relevant psychosocial, ethical, and professional issues to engage in active reflection of clinical supervision experiences, understand dynamics and responsibilities of supervisor/supervisee relationship, and identify personal growth opportunities and limitations in scope of patient practice. S/U grading.


588. MS Thesis Research and Writing. (2 to 12) Tutorial, to be arranged. Preparation of research data and writing of MS thesis. May be repeated for credit. S/U grading.


INDO-EUROPEAN STUDIES
Interdepartmental Program College of Letters and Science
100 Dodd Hall Box 951417
Los Angeles, CA 90095-1417

Indo-European Studies 310-825-4171
Brent H. Vine, PhD, Chair

Faculty Committee
David M. Goldstein, PhD (Linguistics)
Stephanie W. Jamison, PhD (Near Eastern Languages and Cultures)
Brent H. Vine, PhD (Classics)
Anthony D. Yates, PhD (Near Eastern Languages and Cultures)

Overview
The primary focus of the interdisciplinary Indo-European Studies program is the study of the ancient Indo-European languages and of their reconstructed ancestor, Proto-Indo-European, based on methods drawn from comparative-historical, theoretical, and computational linguistics. Goals of this study include the reconstruction of the Proto-Indo-European language, elucidating its subsequent development into the historical Indo-European languages, and showing how data from the archaic Indo-European languages contribute to a theory of language. There is also attention to other aspects of the nonmaterial culture of the speakers of Proto-Indo-European (such as social structure, religious beliefs, mythology, and po-
**Graduate Major**

**Indo-European Studies MA, CPhil, PhD**

**Requirements**

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

**Indo-European Studies Lower-Division Courses**

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illustrating many paths of discovery at UCLA. P/NP grading.

M20. Visible Language: Study of Writing. (5) (Same as Asian M20, Near Eastern Languages M20, Slavic M20, and Southeast Asian M20) Lecture, three hours; discussion, one hour. Consideration of concrete means of language representation in writing systems. Earliest representations of language known are those of Near East dating to end of 4th millennium BC. While litere civilizations of Egypt, Indus Valley, China, and Mesoamerica left little evidence of corresponding earlist development of writing, and, in case of China and Mesoamerica, their evident isolation mark these centers as loci of independent developments in writing. Basic characterstics of early scripts, assessment of modern alphabetic writing systems, and prentation of conceptual basis of semiotic language representation. Origins and development of early non-Western writing systems. How Greco-Roman alphabet arose in the 7th millennium BC and how it compares to other modern writing systems. P/NP or letter grading.

M70. Language and Evolution. (5) (Same as Linguistics M4.) Lecture, three hours; discussion, one hour. Homo Sapiens is only species on Earth with capacity to create arbitrary but meaningful utterances from small inventory of speech sounds. How and why our species developed this ability is question of fundamental scientific and humanistic importance. Survey of origin of human language from number of intellectual perspectives, including linguistics, anthropology, and evolutionnary biology. Exploration of relationship between language faculty and linguistic theory. P/NP or letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-divi- sion lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities. May be repeated for credit. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-divi- sion students under guidance of faculty mentor. Stu- dents must be in good academic standing and en- rolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

**Upper-Division Courses**

131. European Archaeology: Neolithic to Bronze Age. (4) Lecture, four hours. Survey of European cultures from beginning of food-producing economy in 7th millennium BC to beginning of Bronze Age in 3rd millennium BC. P/NP or letter grading.

132. European Archaeology: Bronze Age. (4) Requi- rements: course 131. Lecture, four hours. Survey of European cultures from around 3000 BC to the period of destruction of the Mycenaean culture about 1200 BC. Aegean area and rest of Europe.

140. Food, Language and Myth. (4) Lecture, three hours; discussion, one hour. Introduction to study of food in fields of linguistics and mythology. What is special about language used to talk about food, what is history of food words, and how does language im- part appreciation of food? How do myths and narra- tives revolving around food function in different cul- tures? Students explore history of food words and learn how to analyze myths. Students become aware of how language in food is manipulated and how to tell more effective stories about food. P/NP or letter grading.

M150. Introduction to Indo-European Linguistics. (3) (Same as Linguistics M150.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requi- site: Linguistics 1 or 20. Indo-European languages (ancient and modern), including their relationships, chief characteristics, writing systems, and sociolin- guistic contexts; nature of reconstructed Indo-Euro- pean proto-language and proto-culture. One or more Indo-European languages may be investigated in detail. P/NP or letter grading.

C160. Indo-European Comparative Mythology and Poetics. (4) Seminar, three hours. Preparation: famili- arity with at least one ancient Indo-European lan- guage. Comparison of major Indo-European mytho- logical and poetic traditions and reconstruction of their common sources. Topics include divinities and their names; symbolic systems in social context; myths, folk narratives, belief systems; relations with linguistic morphology and syntax. P/NP grading.

M168A. Introductory Hittite. (4) (Formerly numbered M168A) Lecture, three hours. Recommended preparation: knowledge of language with case system. Introduction to Hittite grammar by series of graded lessons covering mor- phology and syntax and reading of selected texts from variety of genres. P/NP or letter grading.

M168B. Introductory Hittite. (4) Lecture, recommended: course M168A. Readings of selected Hittite texts from variety of genres and historical periods. Individual topics in synchronic and historical grammar of Hittite and in history and culture of Hittites are treated in detail. P/NP or letter grading.

M172. Elementary Luwian. (4) (Same as Ancient Near East M172.) Lecture, three hours. Recommended preparation: knowledge of language with case system. Introduction to Luwian grammar through lectures covering morphology and syntax, and readings of selected texts in Luwian language. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate upper-division lecture course. Exploration of topic in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible stu- dents. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. De- signed as adjunct to upper-division lecture course. In- dividual study with lecture course instructor to explore topics in greater depth through supplemental read- ings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract re- quired. Honors content noted on transcript. Letter grading.

**Graduate Courses**


238. Analyzing Historical Texts. (4) (Same as His- tory M266C and Linguistics M238) Seminar, four hours. Designed for graduate students. Analysis of lin- guistic structure and ethnohistorical context of legal and other documents written by native-speaking scribes and translators. Topics include paleographic technique and text analysis software. May be repeated for credit. S/U grading.

240. Comparative and Historical Grammar of Anatol- ian. (2 to 4) Lecture, three hours. Requisites: courses M150, M168A. Survey of comparative and historical grammar of Anatolian languages, with special focus on its implications for Indo-European reconstruction and for language change broadly. Grammatical fea- tures are observed in context through readings of rep- resentative texts from Anatolian languages including Hittite, Luwian, Lycian, and Palaic. S/U or letter grading.

250A-250B. European Archaeology. (4–4) Seminar, three hours. Studies in ancient European archaeologi- cal materials and their relationship to Near East, Western Siberia, and Central Asia. May be repeated for credit. In Progress (250A) and S/U or letter grading (250B) grading.

C260. Indo-European Comparative Mythology and Poetics. (4) Seminar, three hours. Preparation: ability to read original sources in at least one ancient Indo- European language. Comparison of major Indo-Euro- pean mythological and poetic traditions and recon- struction of their common sources. Topics include di- vinities and their names; symbolic systems in social context; myths, folk narratives, belief systems; rela- tions with other traditions; literary continuations of mythopoeic material. Concurrently scheduled with course C216. S/U or letter grading.

INFORMATION STUDIES
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Luis H. Mendes, MLIS
Meredith A. Reese, MA
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Overview
The Department of Information Studies has one of the top-ranked programs of its kind in the country and has developed an international reputation in the areas of information policy, information-seeking behavior, user interface development, archives, preservation, and cataloging. Whether students choose to pursue a master’s degree or a doctorate degree, they graduate with a broad understanding of both theory and practice.

For information about the Information Studies department and programs, see the department website.

Career Prospects
Students with Master of Library and Information Science (MLIS) degrees go on to careers as librarians, archivists, and information professionals in a variety of organizational settings. The Doctor of Philosophy (PhD) focuses on the preparation of scholars in the field.

Undergraduate Minor
Information and Media Literacy Minor
The Information and Media Literacy minor is designed for students who wish to augment their major program with a group of related courses that provide a systematic, focused, and critical introduction to information and media literacies. The core courses together with electives provide students with an understanding of the processes, dynamics, and societal implications of the production and dissemination of information and media and skills for their judicious evaluation, consumption, and productive use.

Admission
To enter the minor, students must have a cumulative grade-point average of 2.3 or better, have completed one required lower-division or upper-division course with a grade of B or better, and submit the minor application. Applications are available on the minor website.

The Minor
Required Lower-Division Core Courses (10 units):
Two courses selected from Information Studies 10, 20, 30.

Required Upper-Division Core Courses (9 units):
Information Studies C115, M121 (or Education M121).

Upper-Division Elective Courses (12-15 units):

Policies
A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.
Each minor course must be taken for a letter grade and be a minimum of 4 units. Students must have a cumulative grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Majors
Information Studies PhD
Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Master of Library and Information Science
Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Concurrent Degree Program
Concurrent degree programs allow students to reduce the number of courses required for two degrees, since some courses may apply to both degrees.

• Master of Library and Information Science/Latin American Studies MA

Information Studies
Lower-Division Courses
10. Information and Power. (5) Lecture, four hours. Introduction to core concepts of information and power and relation between them in range of social, economic, political, cultural, technological, and institutional contexts. Topics include markets and economies; cultural and media institutions; state interests in information; conflict and warfare; information organization, classification, and access; power and technology infrastructure; and intellectual freedom. Letter grading.
19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and stimulating many paths of discovery at UCLA. P/NP grading.

20. Digital Cultures and Societies. (5) Lecture, four hours. Examination of social and cultural contexts of global digital networks and systems. Exploration of ethical, infrastructural, and political questions raised at intersection of technologies and cultures. Topics include data surveillance, algorithms, artificial intelligence (AI) systems, digital economies and labor, social media cultures and non-Western systems of technology, digital media literacies, and more. Letter grading.

30. Internet and Society. (5) Lecture, four hours. Introduction to key historical and sociotechnical developments that have given rise to today’s Internet and related information and communication technologies, from networks and telecommunication in 20th century to contemporary digital networks and platforms. Focus on economic, political, and cultural consequences of those developments and technologies in society today. Letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course(s). Four hours. Exploration of topic(s) in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be repeated toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

97. Variable Topics in Information Studies. (4) Seminar, four hours. Designed for freshmen/sophomores, but open to other students. Exploration of changing set of basic concepts and issues in study of information, information technology, and society and culture at introductory level. May be repeated for credit with consent of instructor. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students may use modules and data collected in units and rolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses C115. Introduction to Information Literacies. (4) Lecture, two hours. Introductory introduction to the present and historical role and impact of information literacy—ability to identify, locate, critically evaluate, use, and create information effectively and ethically, for personal, professional, and civic purposes. Topics include the practice and theory related to impact of economic, legal, and social/environmental issues on development of access to, use, and assessment of information, currently and historically; developing and refining information researching questions; conducting effective information researching; distinguishing among and critically evaluating information researching tools such as Google and databases, as well as types of items, such as ads, opinions, and factual studies; documenting sources used in information researching; effectively helping others learn information researching and critical thinking skills and abilities. Letter grading.

115. Data and Ethics in Society. (5) Seminar, four hours; discussion, one hour. Exploration of moral, social, political, and ethical ramifications of choices we make at different stages in social construction of data. Includes cultivation of ethical analysis of processes of data collection, data mining, data storage, and deployment of data affected by variety of different communities, publics, nation-states, and individuals. Students learn basics of data ethics frameworks to assess range of data-driven projects and platforms. Students gain understanding of social, historical, and political dilemma of big data, algorithmic decision-making, predictive analytics, and distinct challenges associated with ethical, civil-, human-, and sovereign-rights models of engaging modern digital information era. Letter grading.

M121. Introduction to Media Literacies. (5) Same as Education M121.) Seminar, four hours. Exploration of relationships between media, technology, and popular culture. Students guided to analyze media representations, question process of normalizing dominant ideologies, and communication messages. Through application of critical media literacy framework, students expand notions of literacy to be more inclusive of all types of texts; and deepen their abilities to read images, and resist or negotiate to represent social and environmental injustice. Letter grading.

M135. Environmental Justice through Lens of Media and Education. (5) Same as Education M135.) Seminar, four hours. Exploration of human relationships with natural world, historically and today. Students take critical look at ways information has been shaped, audiences positioned, and movements manipulated to promote commercial interests over public good. Exploration of progressive movements that have in past challenged—and currently challenge—neoliberal agendas, extractive policies, and unsustainable practices. Letter grading.

M137. Critical Digital Media Literacies. (4) Same as Education M137.) Lecture, four hours. Students question relationships with digital media and information technologies, evolution of literacy, development of communication technologies are improving society, strengthening democracy, and opening up opportunities for challenging hegemony and promoting social transformation. Problematization of social media and question process of normalizing dominant ideologies to create counter-hegemonic media messages. Combines theoretical foundations of cultural studies and critical pedagogy with practical applications of new digital technologies to present traditional print-based means of communication. Exploration of media representations of race, class, gender, sexual orientation, and other identity markers. Students analyze and create media projects related to education. Letter grading.

139. Letterpress Laboratory. (1) Laboratory, one hour. Hands-on printing experience in letterpress shop designed to give students in information studies, design, or other disciplines who do not have previous experience a basic instruction provided, and students work on group project for duration of term. May be repeated twice. P/NP grading.

160. Special Topics in Information Studies. (4) Lecture, three hours; discussion, one hour. Designed for juniors/seniors. Selected topics or issues related to social, cultural, economic, or political aspects of information and information systems. Consult Schedule of Classes for topics and instructors. May be repeated once for credit with topic change. P/NP or letter grading.

188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar and preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SB. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to finalize course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced corequisite: course 188SB. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE 885 course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

191. Directed Research in Information Studies. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. Individual contract required. Letter grading.

Graduate Courses 200. Information in Society. (4) Lecture, two hours; discussion, two hours. Examination of processes by which information and knowledge are created, integrated, disseminated, organized, used, and preserved. Topics include technology, information professions, evolution of literacy, development of information professions, and social issues related to information access. Letter grading.

201. Ethics, Diversity, and Change in Information Professions. (4) Lecture, two hours; discussion, two hours. Service learning course that serves as forum to discuss, learn, and understand ethical challenges of modern information society and how it interacts with professional community, and individual views and impact professional practice, decision making, and public policy. Letter grading.

202. History of Books and Library Technologies. (4) Lecture, two hours; discussion, 90 minutes. Issues in history of books, writing, and literacy technologies. Investigation of invention of writing, diverse cultural concepts of literacy, earliest use of systematic notation systems in Mesopotamia, and current development of devices and practices that shape contemporary books and libraries. Discussion of processes and practices of bookmaking and printing in multiple traditions and cultures, as well as their influence on information access and its role in different societies. Letter grading.

206. Introduction to Economics of Information. (4) Seminar, three and one half hours. Introduction to key concepts, scholars, and studies in economics of information. Topics include economic value and measurement of information, information industries and markets, public goods theories of knowledge and information, network externalities, consequences of intellectual property regimes, information and economic development, and public policy issues, civil liberties and civil rights, censorship, and other restraints on access to information. Letter grading.

207. Information in Society. (4) Lecture, four hours. Preparation of processes by which information and knowledge are created, integrated, disseminated, organized, used, and preserved. Topics include theory, information professions, and social issues related to information access. Letter grading.

208. Scholarly Communication and Bibliometrics. (4) Lecture, four hours. Preparation: one inferential statistics course. Survey of current theory, method, and empirical studies at intersection of scholarly communication and bibliometrics, seeking to understand factors that determine how research is communicated, through printed, electronic, or other media. Letter grading.

210. Global Media and Information. (4) Lecture, three and one half hours. Question of what diversity and culture mean in era of distributed networks and massive information diffusion and socialization. Part of this involves problem of how to work with differing ways of knowing, with differing ontologies. It is now widely accepted that global cultures and communities differ in...
way they practice knowledge, understanding, and making meaning of their worlds. How do we draw boundaries around culture and community? How has this defined a sense of personal, cultural, and historical heritage? How does this understanding shape our present? How do we incorporate and use values. Letter grading.

21.1. Artifacts and Cultures. (4) Lecture, two hours; discussion, two hours. Exploration of social, cultural, and technological evolution through which information and evidence are authored, published, collocated, exchanged, preserved, and accessed. Examination of these artifacts and their properties, types, and relationships: media; categories; materials; structures; content, components, subjects, structures, functions, aesthetic qualities, roles, costs, affordances, and use values. Letter grading.

21.2. Values and Communities in Information Professions. (4) Lecture discussion, two hours. Forum to discuss, understand, and critique value systems and power structures embedded in information and work in diverse societies. Exploration of importance of thinking through grassroots, in design, evaluation, and engagement with information institutions and technologies, ranging from archives and libraries to Internet. Aspects of information society that shape Hu and, social, political, professional, and individual values, including exploration of impact of such values on professional practice, decision making, and public policy. Letter grading.

21.3. Current Issues in Librarianship. (4) Lecture, two and one half hours; discussion, one hour. Overview of historical and evolving conceptual foundations of librarianship, including social analysis of information systems, values and design, infrastructure dynamics, user experience, and prospective analysis. S/U or letter grading.

21.4. Informatics: Principles and Practices. (4) Lecture, three and one half hours. Theories, principles, and professional practices of informatics, including social analysis of information systems, values and design, infrastructural dynamics, user experience, and prospective analysis. S/U or letter grading.

21.5. Introduction to Information Literacy. (4) formerly numbered 446. Lecture, four hours. Instructional introduction to current and historical role and impact of information literacy—ability to identify, locate, critically evaluate, use, and create information effectively and ethically, for personal and scholarly uses. Topics include theory and practice related to impact of economic, legal, and social/environmental issues on development of, access to, and use of information. Emphasis on development and utilization of personal and professional knowledge, skills, and abilities of children through individualized reading guidance. S/U or letter grading.

21.6. Environmental Protection of Collections for Museums, Libraries, and Archives. (4) (Same as Conservation M238.) Lecture, two hours; laboratory, two hours. Emphasis on management of access, communication, and accountability of information, including the identification of strategic issues, challenges related to preserving born-digital/born-networked/digitized materials (e.g., electronic records, spreadsheets, scientific simulations, digital humanities environments, sound and moving image materials, social media and personal digital archives). Implications for digital preservation of new technologies and their applications. Letter grading.

21.7. Information Services in Culturally Diverse Communities. (4) Lecture, two hours. Examination of provision of information services in multicultural and multilingual society. Understanding role of information institutions in promoting cultural diversity and preserving ethnic heritage. Letter grading.

22. Assessment, Measurement, and Evaluation of Information Organizations and Services. (4) Lecture, four hours. Introduction to assessment and evaluation as formal processes of inquiry with individual components, including demonstration of research planning, decision making, and accountability in information organizations. Review and implementation of various methods appropriate to design of assessment and evaluation studies. S/U or letter grading.

22.9. Introduction to Slavic Bibliography. (2) (Same as Slavic M229.) Lecture, two hours. Introduction to Slavic and East European bibliography for the humanities and social sciences. Emphasis to be determined in relation to requirements of individual students. Topics include relevant library terminology and concepts; survey of languages and transliteration systems; acquisition of Slavic and East European library materials; Slavic and East European scholarship in the West; relevant reference sources, archival resources, and research methods; survey of online databases connected to Slavic studies. S/U grading.

232. Records and Information Resources Management. (4) Lecture, three hours. Introduction to records and information management resources in corporate, government, and other organizational settings, including analysis of organizational information flow, classification and filing systems, records retention scheduling, records protection and security, reprographics and image management technology, and litigation support. Letter grading.


238. Environmental Protection of Collections for Museums, Libraries, and Archives. (4) (Same as Conservation M238.) Lecture, two hours; laboratory, two hours. Emphasis on management of access, communication, and accountability of information, including the identification of strategic issues, challenges related to preserving born-digital/born-networked/digitized materials (e.g., electronic records, spreadsheets, scientific simulations, digital humanities environments, sound and moving image materials, social media and personal digital archives). Implications for digital preservation of new technologies and their applications. Letter grading.

239. Letterpress Laboratory. (1) Laboratory, two hours. Hands-on printing experience in letterpress shop designed to give students in information studies, design, or other disciplines understanding of printing process. Basic instruction provided, and students work on project group for duration of term. S/U grading.

240. Management of Digital Records. (4) Lecture, three hours. Introduction to systems management of digital administrative, information, communications, imaging, or research systems and records. Topics include electronic recordkeeping, enterprise and risk management, information privacy, and confidentiality. Letter grading.

241. Digital Preservation. (4) Lecture, three and one half hours. Nature of digital media and networking new systems and metadata that are specifically designed to manage preservation process; new ethical, rights, and collaborative frameworks; and economic, legal, and policy tools with which to manage digital information over long term. Introduction to strategies, techniques, and standards, as well as ongoing challenges related to preserving born-digital/born-networked/digitized materials (e.g., electronic records, spreadsheets, scientific simulations, digital humanities environments, sound and moving image materials, social media and personal digital archives). Implications for digital preservation of new technologies and their applications. Letter grading.

242. Collection Management for Archives, Libraries, and Museums. (4) (Same as Conservation M242.) Lecture, two hours; fieldwork, two hours. How conservators work together with curators, collections managers, mount makers, designers, and registrars to permit collections to be both accessed and preserved. Letter grading.

245. Information Access. (4) Lecture, two hours; discussion, one hour. Topics include: courses 200, 280, provides fundamental knowledge and skills enabling information professionals to link users with information. Overview of structure of literature in different fields; information seeking behavior and communication with users; development of search strategies using print and electronic sources. Letter grading.

246. Information-Seeking Behavior. (4) Lecture, three hours; discussion, one hour. Study of factors and influences, both individual and social, associated with human beings needing, using, and acting on information. Topics include information theory, human information processing, information flow among social and professional groups, and research on information needs and uses. Letter grading.


253. Medical Knowledge Representation. (4) (Same as Bioengineering M226.) Seminar, four hours; outside study, eight hours. Designed for graduate students. Issues related to medical knowledge represen- tation and its application in healthcare processes. Topics include data structures used for representing knowledge (conceptual graphs, frame-based models), different data models for representing spatio-temporal information, rule-based implementations, current statistical methods for database analysis, (data mining, statistical classifiers, and hierarchical classification), and basic information retrieval. Review of work in constructing ontologies, with focus on problems of content, standardization, and terminologies (SNOMED, UMLS). Letter grading.

254. Medical Information Infrastructures and In-ternet Technologies. (4) (Same as Bioengineering M226.) Lecture, four hours; outside study, eight hours. Designed for graduate students. Introduction to networking, communications, and information infrastructures in medical environment. Emphasis on basic concepts related to networking at several levels: low-level (TCP/IP, services), medium-level (network topologies), and high-level (distributed computing, Web-based services) implementations. Commonly used medical communication protocols (HL7, DICOM) and current medical information systems (HIS, RIS, PACS). Advancement in networking, security, medical ontologies, peer-to-peer technologies, grid/cloud computing, introduction to security and encryption in networked environments. Letter grading.

255. Medical Decision Making. (4) (Same as Bioengineering M226.) Lecture, four hours; outside study, eight hours. Designed for graduate students. Overview of issues related to medical decision making. Introduction to concept of evidence-based medicine and decision processes resulting from data and outcomes. Basic probability and statistics to understand research results and evaluations, and algorithmic methods for decision-making processes (Bayes theorem, decision trees). Study design, hy-

256A. Data Management and Practice. (4) Lecture, three and one half hours. Designed for MLIS and PhD students. Survey of landscape of data practices and services used by businesses and institutions. Analysis of theoretical and practical impacts of technology and services. Letter grading.

260. Description and Access. (4) Lecture, three and one half hours. Social, cultural, and technical prac-tices—formal and informal, institutional and per-sonal—through which documents, records, and other forms of information are organized and represented. Design, development, and evaluation of techniques and tools, including data models, metadata schemata, search engines, and management systems in support of curatorialship, stewardship, discovery, and use. Letter grading.

262A. Data Management and Practice. (4) Lecture, three and one half hours. Designed for MLIS students. Continuation of course 262A to address topics of data curation and policy in more depth. Data selection and ap-praisal, archives and repositories, economics of data management, data citation and metrics, technologies for data access and curation, provenance, intellectual property, policy roles of multiple stakeholders in data, and institutional challenges in curation and stewardship of research data. Assessment of data archives and repositories and group project to curate actual data of UCLA researchers in other academic depart-ments. Letter grading.

270. Systems and Infrastructures. (4) Lecture, four hours. Social, cultural, and technical practices through which digital information is collected, managed, and transmitted over the various infrastructure networking systems. Letter grading.

272. Human/Computer Interaction. (4) Lecture, four hours. Survey of social, behavioral, design, and evalu-ation issues in human-computer interaction, with read-ings from several disciplines. Extensive use of tech-nology demonstrations and class discussions. Recom-mended for students in any discipline involved in design or implementation of information technologies. Letter grading.

274. Database Management Systems. (4) Lecture, three hours; laboratory, two hours. Theories, prin-ciples, and practicalities of database systems, including data models, retrieval mechanisms, evaluation methods, and storage, efficiency, and security consider-ations. S/U or letter grading.

275. Community Media and Design. (4) Lecture, two hours; laboratory, two hours. Focus on information professionals, scholars, activists, and information creators/designers/architects focus on questions of culture and community to engage students in understanding infor-mation resources as cultural objects. Role of cultural heritage institutions within dynamics presented, but mostly fundamentally on how communities in partner-ship with information professionals can create, author, and represent information on their own and within their own terms. How new media can begin to serve as tool of empowerment rather than stratification. Study of impacts of technology on larger scales through read-al of core policies and practice. Letter grading.

276. Information and Visualization. (4) Lecture, two hours; discussion, 90 minutes. Access to and analysis of information through visualization has become in-creasingly prevalent as digital tools have made cre-ation of such visualizations easier and more popular. Many software tools for such visualizations come from statistical packages; others come from GIS or spatial mapping, while others are more diagrammatic in de-sign. Basic organization of data visualizations depends on visualization of function, structure of and assumptions about user experience, and other graph-ical features that embody models of information in daily life. This course will explore what visualization presents arguments about knowledge? What historical and critical tools can be brought into useful dialog with contemporary visualizations? Letter grading.

279. User Experience Design. (4) Seminar, four hours. Preparation: at least one course from 246, 272, 276, 277, 455. Requisite: courses 200, 260. Content from forthcoming book, focusing on speci-fied topics such as vocabulary control, file design, in-dexing, classification, text processing, measurement of relevance, evaluation of information systems, and social and policy visualization. Letter grading.


281. Historical Methodology of Information Studies. (4) Lecture, four hours. Prerequisite: course 200. In-trusion to historical research as it relates to library and information science. Identification of key primary and secondary source material for writing history in field. Critical analysis of selected histories of various areas in the profession. Problem-oriented approach. Letter grading.

282. Design as Research Method. (4) Seminar, three and one half hours. Theories, principles, and applica-tion of design as methods for discovery, exploration, and evaluation of user requirements, functionality, values, and system structure. S/U or letter grading.

286. Research Apprenticeship Course. (2 to 4) Sem-inar, two hours. Use of mentorship model of training graduate students in information studies, with focus on development of graduate student research topics. Assignment of common readings related to these topics; students have opportunity to offer and receive feedback. May be repeated for credit. S/U grading.

289. Seminar: Special Issues in Information Studies. (4) Seminar, three and one half hours. Identification, analysis, and discussion of critical intellectual, social, and technological issues facing the profession. Topics may include (but not limited to) expert systems, lit-eracy, electronic networks, youth at risk, information literacy, historical bibliography, digital archives, elec-tronic media, etc. May be repeated with topic change. Letter grading.

290. Research Seminar: Information Studies. (1 to 2) Seminar, one to two hours. Designed for PhD stu-dents. Emphasis on recent contributions to theory, re-search, and methodology. May be repeated for credit. S/U grading.

291A. Doctoral Seminar: Theoretical Traditions in In-formation Studies. (4) Seminar, four hours. Nature of information studies—ontological, epistemological, and ethical foundations of information arts and sciences. Conceptions, theories, and models of information; information-related artifacts, agents, con-texts, institutions, practices, properties, values, and relations. Letter grading.

291B-291C. Special Topics in Theory of Information Studies. (4–4) Seminar, four hours. Enforced requisite for course 291C; course 291A. Topics include informa-tion and evidence—record-keeping and memory-making, personal—through which documents, records, and other forms of information are organized and represented. Design, development, and evaluation of techniques and tools, including data models, metadata schemata, search engines, and management systems in support of curatorialship, stewardship, discovery, and use. Letter grading.

298A. Doctoral Seminar: Research Methods and Design. (4) Seminar, four hours. Survey of quantitative, qualitative, and historical research designs. Ethical is-sues; conceptualization and measurement; indexes, scales, and sampling; experimental, survey, field, and evaluation research; data analysis. Letter grading.

298B-298C. Special Topics in Methodology of Infor-mation Studies. (4–4) Seminar, four hours. Enforced requisite for course 298C; course 298A. Topics in-clude anthropological fieldwork methods, archival methodology, bibliographical studies, textual analy-sis, discourse analysis, historical methods, informa-tion visualization, network analysis—bibliometrics, in-formetrics, scientometrics, social network analysis. Letter grading.

375. Teaching Apprenticeship Practicum. (1 to 4) Sem-inar, to be arranged. Preparation: apprentice per-sonnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guid-ance and supervision of regular faculty member re-sponsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

400. Professional Development and Portfolio De-sign. (2 to 4) Lecture, two hours; discussion, two hours. Preparation: completion of information studies core courses. Drawing on literature from many fields, exploration of issues related to professional develop-ment, such as career planning, continuing education, mentoring, and reflexive practice; students also en-gage in process of guided portfolio design for MLIS degree. S/U grading.

410. Management Theory and Practice for Informa-tion Professionals. (4) Lecture, two hours; discussion, two hours. Principles and practice of management in all types of organizations where information profession-als work. Letter grading.

422. College, University, and Research Libraries. (4) Lecture, four hours. Organization, administration, col-lections, facilities, finances, and problems of college and university libraries and their relationships within institutions of which they are part. Functions of re-search libraries and work of their staffs in serving scholars. Letter grading.


425. Library Services and Programs for Children. (4) Lecture, two hours; discussion, two hours. Theory and practice of service to children in public libraries. Overview of professional library service to children aged 14 and under; provides opportunities for students to gain experience in particular skills needed to provide that service. Discussion of special challenges in working with young people and psychology of teenagers. S/U or letter grading.

427. Young Adult Services. (4) Lecture, 90 minutes; discussion, two hours. Theory and practice of service to teens and tweens in libraries. Overview of professional library service to youth aged 11 and over; opportunities for students to gain experience in particular skills needed to provide that service. Discussion of special challenges in working with young people and psychology of teenagers. S/U or letter grading.


431. Archives, Records, and Memory. (4) Lecture, four hours. Overview of historical and evolving conceptual foundations, major professional institutions, key practices, and contemporary issues and concerns of archival studies and American archival profession, as well as fields interested in archives, records, and memory. S/U or letter grading.


433. Community-Based Archiving. (4) Lecture, three and one half hours. Builds on student understanding of and experience with community-based development of practical strategies for documenting their activities; managing, collecting, and preserving their records and other historical and cultural materials; and non-centric community research. Students required to reflect critically on questions about definition, community memory and recordkeeping practices, motivations, positional and political advocacy, funding, and long-term sustainability, ownership, access and use, technological implementation, and collaborations. Letter grading.

434. Archival Use and Users. (4) Lecture, three and one half hours. Prerequisite: course 431. Examination of who uses archives and why, with ultimate goal of creating ways to better understand and meet needs of these users as well as engage new audiences in archival users. While students have traditionally conceived of their users as academic researchers, more thorough investigations explore this conception of users to include genealogists, artists, K-12 students and educators, families of victims of human rights abuse, community members, and members of general public. Methods for studying users, ways to conduct outreach to target user groups, and ways in which archivists can engage public. Letter grading.

438A. Seminar: Advanced Issues in Archival Science—Archival Appraisal. (4) Seminar, four hours. Prerequisite: course 431. Examination and evaluation of contributions of archival appraisal theory; identification and evaluation of distinct movements in archival appraisal; identification of cultural, political, sociological, and technological movements that can have impact on appraisal methodologies. Letter grading.

438B. Seminar: Advanced Issues in Archival Science—Archival Description and Access Systems. (4) Seminar, four hours. Prerequisite: course 431. Exploration of archival description and access systems in the U.S. and their development since World War II; data collection; access tools and implications of these issues in development of online archival access systems. Letter grading.

439. Seminar: Special Collections. (4) Seminar, two hours; discussion, 90 minutes. Students work with special collections materials on one focused theme or topic and have to think through research aspects of exhibit or symposium or collection assessments and then create well-focused and curbed agenda for presentation, exhibition, or preservation of materials. Letter grading.


463. Indexing and Thesaurus Construction. (4) Lecture, four hours. Prerequisites: design and methods of construction of thesauri. Evaluation and overview of thesauri used in manual and online environments. Basic professional techniques for indexing variety of types of materials and for preparing informative and indicative abstracts. Letter grading.

464. Metadata. (4) Lecture, four hours. Introduction to variety of metadata provided for digitized and other electronic information resources. Introductory theory and practice of designing and applying metadata. S/U or letter grading.

480. Introduction to Media Archiving and Preservation. (4) Seminar, four hours. Overview of history, conceptual foundations, policies, institutions, and professional methods that have shaped collections of audiovisual materials from early 20th century to present. Introduction to fundamental archival concepts and key practices, including collection development, appraisal, preservation, restoration, arrangement and description, and critical analysis of their specific application to media collections and materials. Discussion of classical and emergent models for media archive administration, including funding, programming, outreach, access, and reuse; changing role of technology in media creation, collection, and preservation; ethics and community standards; different roles of public, private, and national media archives; and cultural impact of historical and contemporary audiovisual media. Letter grading.

495. Teaching Assistant Training Seminar. (2) Seminar, two hours. Limited to departmental doctoral students. Preparation for teaching assistant appointments in departmental undergraduate courses. Principles of instructional design and evaluation, curriculum development, instructional technology use, and key teaching issues (diversity, students with disabilities, academic integrity, copyright). S/U grading.


501. Cooperative Program. (2 to 8) Tutorial, to be arranged. Used to record enrollment of UCLA students in courses taken under cooperative arrangements with USC. S/U grading.

596. Directed Individual Study or Research. (1 to 8) Tutorial, to be arranged. Directed special studies in fields of bibliography, librarianship, and information science. Variable conference time depending on nature of study or complexity of research. No more than 8 units may be applied toward course requirement for MLS degree. S/U grading.

597. Directed Studies for PhD Qualifying Examinations. (2 to 12) Tutorial, to be arranged. S/U grading.

598. MLS Thesis Research and Writing. (2 to 8) Tutorial, to be arranged. Designated for graduate library and information science students. Supervised independent research for candidates in MLS thesis option. S/U grading.

599. PhD Research and Writing. (2 to 12) Tutorial, to be arranged. S/U grading.

Faculty Roster

Professors
Gene D. Block, PhD, Chancellor
Scott H. Chandler, PhD
Rachel H. Crosbie, PhD
Mark A. Frye, PhD
David L. Glanzman, PhD
Fernando Gómez-Pinilla, PhD, In Residence
Walter H. Metzner, PhD
Ketema N. Paul, PhD
Patricia E. Phelps, PhD
Gina R. Poe, PhD (Eleanor Leslie Professor of Innovative Brain Research)
Barrett A. Schlinger, PhD
James G. Tidball, PhD
David W. Walker, PhD
Stephanie A. White, PhD (William Scheibel Professor of Neuroscience)
Roy Wollman, PhD
Xinshu Grace Xiao, PhD
Xia Yang, PhD

Professors Emeriti
Arthur P. Arnold, PhD
R. James Barnard, PhD
V. Reggie Edgerton, PhD
Gordon L. Fan, PhD
Gerald W. Gardner, PhD
Alan Garfinkel, PhD
Alan D. Grinnell, PhD

INTEGRATIVE BIOLOGY AND PHYSIOLOGY

College of Letters and Science

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Integrated Biology and Physiology
Graduate Office, 310-825-5022
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Undergraduate Office, 310-825-3892
E-mail contact

Rachelle H. Crosbie, PhD, Chair
Patricia E. Phelps, PhD, Vice Chair


Overview

The cornerstone of the Physiological Science major is vertebrate physiology, with emphases on integrative functions. The research and educational programs of the Department of Integrative Biology and Physiology focus on integrative physiology at several levels of organization from molecules to living organisms, microscopic structures to macroscopic organization, and cellular properties to organ functions. Students receive comprehensive instruction in all areas of physiological science, while elective courses reflect faculty research expertise, including developmental neurobiology, gene regulation/neural development, cellular neurobiology, molecular neurobiology, neuromuscular physiology, neuroendocrine physiology, cardiac physiology, diet and degenerative disease, auditory and visual behavior, biomechanics of rehabilitative medicine, muscle cell biology, inflammatory cell biology, vascular biology, cardiac electrophysiology, neuromotor control, and social control of neuronal plasticity.

Undergraduate Major

Physiological Science BS

Learning Outcomes

The Physiological Science major has the following learning outcomes:

- Demonstrated broad-based knowledge of the fundamentals of anatomy and vertebrate physiology
- Demonstrated ability to address scientific questions or solve problems using quantitative and inquiry-related skills, including developing hypotheses, designing and performing experiments, analyzing data, and interpreting results
- Reading and understanding of primary scientific literature
- Understanding key questions and hypotheses
- Interpretation of results and conclusions
- Discrimination of quality through critique
- Appreciation for research by participating in one or more laboratory experiences
- Value science and research and their relevance to one's own life and society

Entry to the Major

Admission

To enter the Physiological Science major, students must complete Chemistry and Biochemistry 14A, 14B, and 14C, or 20A, 20B, and 30A, Life Sciences 7A, 7B, Mathematics 3A, 3B, and 3C, or 31A, 31B, and 32A, or Life Sciences 30A, 30B, and 40, or Statistics 13, and Physics 1A or 5A, with a minimum grade of C in each course and a grade-point average of 2.5 or better in all before fall quarter of their third year. Repetition of more than one of these nine preparation courses results in denial of admission to the major. After successful completion of the courses, students must contact the Undergraduate Advising Office to declare the major.

Transfer Students

Transfer applicants to the Physiological Science major with 90 or more quarter units must complete the following introductory courses prior to admission to UCLA: one year of general biology with laboratory for majors, preferably equivalent to Life Sciences 7A, 7B, and 7C, one year of calculus, one year of general chemistry with laboratory for majors, and one semester of organic chemistry with laboratory. A second semester of organic chemistry or one year of calculus-based physics is strongly recommended but not required for admission.

Transfer credit for UCLA Extension coursework and for any departmental courses is subject to prior approval by the department; consult with the undergraduate counselor before enrolling in any courses for the major.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major

Life Sciences Core Curriculum

Required: Chemistry and Biochemistry 14A, 14B, 14BL, 14C, 14CL, and 14D, or 20A, 20B, 20L, 30A, 30AL, 30B, and 30BL; Life Sciences 7A, 7B, 7C, 23L; Life Sciences 30A, 30B, and 40 or Statistics 13, or Mathematics 3A, 3B, and 3C, or 31A, 31B, and 32A; Physics 1A, 1B, 1C, 4AL, and 4BL, or 5A, 5B, and 5C.

Graduate Major

Physiological Science MS

Applicants interested in pursuing graduate study may apply directly to the interdepartmental Molecular, Cellular, and Integrative Physiology PhD program or the interdepartmental Neuroscience PhD program.

Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.
Physiological Science

Lower-Division Courses

3. Introduction to Human Physiology. (5) Lecture, three hours; laboratory, two hours. Not open to Physiological Science majors. Courses 3 and 5 may be taken independently, concurrently, or in either sequence. Understanding human body, its organization from molecular to cellular to tissues and organs, and how component parts function in integrated manner to permit life as we know it. P/NP or letter grading.

5. Issues in Human Physiology: Diet and Exercise. (5) Lecture, three hours; discussion, 30 minutes; laboratory, 90 minutes. Not open to Physiological Science majors. Basic introduction to principles of human biology, with special emphasis on roles that exercise and nutrition play in health, and prevention and management of such illnesses as hypertension, diabetes, and heart disease. P/NP or letter grading.

6. The Human Machine: Physiological Processes. (4) Not open to Physiological Science majors. General introduction to human musculoskeletal, cardiovascular, and respiratory systems and their function, with special emphasis on anatomy, physiological and psychological aspects of homeostasis and environmental interaction. Application of physical principles in selected areas of biomechanics, hemodynamics, ergonomics, orthopedics, and kinesiology. PGR or 4B.

7. Science and Food: Physical and Molecular Origins of What We Eat. (5) Lecture, three hours; laboratory, two and one half hours. Preparation: high school chemistry, mathematics, physics. What makes lettuce crispy and some cuts of meat chewier than others? Exploration of origins of food texture and flavor, using concepts in physical sciences to explain macroscopic properties such as elasticity and phase behavior, as well as physical role of food molecules in plants and animals we eat. Letter grading.

13. Introduction to Human Anatomy. (5) Lecture, four hours; laboratory, five hours. Not open to Physiological Science majors. Structural survey of human body, including skeletalmouscular, nervous, circulatory, respiratory, digestive, and genitourinary systems. Laboratory includes examination of human cadaver specimens. Letter grading.

15. Fiat Lux: Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many patterns emerging. (LA) P/NP or letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Directed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. P/NP or letter grading.

90. Introduction to Physiological Science. (2) Lecture, one hour; discussion, one hour. Limited to freshmen/sophomores. Introduction to current topics in physiological science by a team of departmental faculty members.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must complete: grade standing and enrollment in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

100. Experimental Statistics. (4) Lecture, four hours. Introduction to statistics with focus on computer simulation instead of formulas. Bootstrap and Monte Carlo methods used to analyze physiological data. P/NP or letter grading.

M106. Neurobiology of Bias and Discrimination. (4) (Same as Neuroscience M187 and Psychology M166.) Lecture, four hours. Limited to junior/senior neuroscience, physiological science, and psychology students. Exploration of aspects of mammalian brain function that generate preference, bias, and discrimination. Consideration of research at multiple levels of analysis and its relationship to behavior. Discussion of societal implications of these research findings, including their relevance to public policies and criminal justice system. Letter grading.

107. Systems Anatomy. (8) Lecture, four hours; laboratory, three hours; discussion, one hour. Requisites: courses 111A and 111B. Students must receive grade of C or better to proceed to next course in sequence. Systems anatomy focused primarily on human anatomy. Topics include: cardioroppressory, reproductive, nervous, and skeletalmuscular systems, with introduction to biomechanical principles. Letter grading.

108. Head and Neck Anatomy; Evolutionary, Biomechanical, Developmental, and Clinical Approach. (4) Lecture, three hours; laboratory, two hours. Requisites: course 107. Strongly recommended; course 153. Prior to first meeting, complete Bloodborne Pathogens training course through UCLA Environ- ment, Health and Safety. Introduction to head and neck anatomy. Dissection of head and neck, with focus on functional anatomy and musculature to put them in three-dimensional context. Coverage of evolutionary, developmental, physiological, and biomechanical aspects of skull, including comparative anatomy, human cranial development, and muscle attachment. P/NP or letter grading.

110. How Cancer Co-Opts Normal Physiology. (4) Lecture, three hours; discussion, one hour. Requisites: courses 111A and 111B. Discussion of cellular and molecular players involved in cancer morphogenesis, postnatal heart growth, and cellular regeneration, to better understand emergence of cardiac disease such as congenital heart disease, coronary artery disease, and atherosclerosis. Use of primary literature to highlight modern genetic tools such as transgenic animal models and sequencing technology in cancer research. Various cancer cell lineages and/or gene perturbations contribute to cardiopathophysiology such as cardiovascular death, cardiac fibrosis, and vascular dysfunction. Letter grading.

111A-111B. Foundations in Physiological Science. (4-6) Lecture, four hours; discussion, two hours. Letter grading. 111A: Requisites: course 107, Chemistry 14C or 16, Physics 1A, Chemistry 153A, Life Sciences 1, 2, 3, 4, 23L, or 7A, 7B, 7C, and 23L. Discoveries of new science of aging biology, with examination of aging as plastic trait modulated by genes and physiological processes. Development of methods to integrate with nutritional modification of lifespan and profound relationship between under-lying aging process and diseases of aging. Topics include dietary restriction, mitochondria, insulin/GF signaling, and link between tumor suppression and organ-specific aging. Letter grading.

111L. Physiological Science Laboratory. (3) Lecture, four hours. Requisites: courses 111A and 111B, with grades of C– or better. Required of Physiological Science majors. Designed to illustrate physiological principles studied in courses 111A, 111B. Letter grading.

120. Kidney: Understanding It from Development to Disease to Therapy. (4) Lecture, three hours. Enforced requisites: courses 111A and 111B. View of basic renal function, with emphasis on broad range of renal diseases and their molecular mechanisms. Introduction to research methods typically employed in studies of kidney disease. Exploration of state-of-art research on kidney repair and regeneration. Letter grading.

121. Disease Mechanisms and Therapies. (5) Lecture, three hours; discussion, one hour. Requisites: Chemistry 135A, and Life Sciences 2, 3, and 4 or 7A, 7B, and 7C. Designed for junior/senior Biochemistry and life sciences majors. Use of disease mechanisms as pedagogical tools to develop higher-order knowledge of basic scientific concepts. Integration of concepts from genetics, molecular and cell biology, physiology, and biochemistry to create molecular solutions to problem of inherited renal disease. Letter grading.

122. Biomedical Technology and Physiology. (4) Lecture, four hours. Requisites: courses 111A, 111B, Life Sciences 2 or 7C, Physics 1A, 1B, and 1C, or 5A, 5B, and 5C, or 6A, 6B, and 6C. Developments in biomedical technology and their impact on the human treatment of disease, basic engineering principles, and design that lend themselves to deciphering physiological states, and application of new technologies in clinical practice and biomedical research. Letter grading.

CM123. Neurobiology of Sleep. (4) (Same as Neurosci- ence CM123.) Lecture, three hours; discussion, one hour. Requisites: courses M101A and M101B or 111A and 111B or consent of instructor. Detailed look into science of sleep. Cellular and molecular mechanisms of falling asleep; many discrete brain structures involved in control of sleep/wake cycle; homeostatic regulation of sleep, How our sleep needs shaped by our evolutionary history, age, and gender. Latest insights into question of function of sleep, critical role sleep plays in memory formation and, close association between sleep and metabolism. Sleep disorders are considered as they provide insights into mechanisms underlying sleep. For background on science of sleep and circadian regulation of course C126 is highly recommended. Concurrently scheduled with course CM223. Letter grading.

124. Molecular Biology of Aging. (4) Lecture, three hours. Requisites: Chemistry 135A, Life Sciences 1, 2, 3, and 4 or 7A, 7B, and 7C. Analytical description of molecular systems that underlie myriad phenotypes in living cells. Topics include various -omics fields and high-throughput technologies, network biology, and synthetic biology. Introductory lecture courses on molecular biology, emerging bioinformatics approaches, and systems modeling integrated with discussions of their applications in disease-related research. Review of recent literature gain overall perspective about new science of systems biology. Letter grading.

C126. Biological Clocks. (4) Lecture, three hours; dis- cussion, one hour. Requisites: courses 111A and 111B. Letter grading.
cadian oscillations. Exploration of molecular, cellular, and system-level organization of these timing systems. Temporal role of these variations in maintaining homeostatic mechanisms of body and impact on nervous system. Concurrently scheduled with course C226. Letter grading.


128. Me, Myself, and Microbes: The Microbiome in Health and Disease. (5) Lecture, four hours; discussion, 90 minutes. Requisites: course 107 or Chemistry 153A, Life Sciences 2 and 3, or 7A, 7B, and 7C. Exploration of host-microbial interactions in health and disease, drawing upon basic properties for microbial communities, intersections with immunology, metabolism, and neurobiology. Letter grading.

C130. Sex Differences in Physiology and Disease. (4) Lecture, four hours; discussion, one hour. Enforced requisites: course 111B, Life Sciences 7A, 7B, 7C. Investigation of biological origins of sex differences in physiology (mostly vertebrate), and consequences of these differences. Emphasis on development of concepts to define sex, and interface between biological factors and effects of gendered environments. Topics include evolution of sex chromosomes, molecular and environmental determinants of gonadal type, dosage compensation, gonadal steroid hormone effects on tissues, physiology of reproduction as it applies to sex differences, interaction of genetic and environmental components in differentiation of two sexes, defining sex and gender, gendered environments and their influence on physiology, and policies of financial support for research of sex and gender differences in disease. Concurrently scheduled with course C230. Letter grading.

M135. Dynamical Systems Modeling of Physiological Processes. (5) (Same as Neuroscience M135.) Lecture, four hours; laboratory, two hours. Examination of art of making and evaluating dynamical model of physiological systems and of dynamical principles inherent in physiological systems. Letter grading.


140. Hormones and Behavior in Humans and Other Animals. (4) Formerly numbered M140.) Lecture, three hours; discussion, one hour. Examination of hormones, and physiology and genetics involved in hormonal processes and function. Interactions among hormonal levels, environmental stimuli, and behavior. Sexual behavior, pregnancy, and lactation, parental behavior, development and emigration, stress, social behavior, dominance relationships, aggression, chemical communication, and reproductive suppression. Critique of primary literature on behavioral endocrinology about humans and other species. Consideration of spectrum of noninvasive to highly invasive endocrine sampling methods, and which types of questions can be answered in laboratory and field, as well as ethics of hormonal studies and their implications for humans and other animals. Letter grading.

C144. Neural Control of Physiological Systems. (4) Lecture, three hours; seminar, one hour. Requisite: course 111B, M143. Role of central nervous system in control of respiration, circulation, sexual function, and bladder control.

Material for each section to be developed by combination of lecture and open discussion. Concurrently scheduled with course C244. Letter grading.

M145. Neural Mechanisms Controlling Movement. (5) (Same as Neuroscience M145.) Lecture, four hours; discussion, two hours. Requisites: course 111A or M180A or Neuroscience M101A. Examination of central nervous system organization required for production of complex movements such as locomotion, mastication, and swallowing. Letter grading.

146. Principles of Nervous System Development. (5) Lecture, three hours; discussion, two hours. Requisites: courses 107 (or Neuroscience 102) and 111A (or M180A). Examination of structural and functional development of the nervous system as a series of integrated steps beginning with several embryonic cells and culminating as complex highly ordered system. Topics include neural crest formation, neural tube closure, neural outgrowth, and synapse formation. Letter grading.

147. Neurobiology of Learning and Memory. (5) Lecture, four hours; discussion, one hour. Requisite: course 111A or M180A. Changes in central nervous system that accompany learning, with emphasis on cellular mechanisms.

148. Physiological Regulation of Metabolism and Nutrient Sensing. (4) Lecture, two and one half hours; discussion, one hour. Requisite: course 111B. Study of energy metabolism and processing of macronutrients like carbohydrates, lipids, and proteins in mammals. Students gain tools and knowledge for synthesizing ideas in relation to research to add to basic understanding of macronutrient metabolism. Use of clinical case studies to understand how human mutations in metabolic pathways lead to metabolic diseases such as diabetes, obesity, and familial hypercholesterolemia. Understanding of glycogen storage disease, inborn errors of metabolism, mitochondrial disorders, and lysosomal storage diseases. Study of how cells sense nutrients and adapt metabolism to avoid nutrient sufficiency—e.g., how cells respond to excess cholesterol. Discussion of mechanisms involved in import, export, and synthesis of nutrients. Use of primary literature to analyze and critically evaluate topics related to concepts covered in lectures. Letter grading.

149. Systems Biology and Mechanisms of Major Cardiometabolic Diseases. (4) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 7A, 7B, 7C. Strongly recommended: Chemistry 153A. Designed for juniors/seniors. Introduction of principles gained through basic science curriculum with modern systems biology concepts, approaches, and presently underdeveloped models. Focus on mechanisms of diseases like atherosclerosis, glycogen storage disease, inborn errors of metabolism, mitochondrial disorders, and lysosomal storage diseases. Study of how cells sense nutrients and adapt metabolism to avoid nutrient sufficiency—e.g., how cells respond to excess cholesterol. Use of primary literature to analyze and critically evaluate topics related to concepts covered in lectures. Letter grading.


153. Dissection Anatomy. (5) Lecture, two hours; laboratory, five hours; discussion, one hour. Requisite: courses 111B and 1107. Prior to first meeting, students must complete Bloodborne Pathogens training course through UCLA Environment, Health and Safety. Study and dissection of upper and lower extremities of human cadavers; dissection of thorax and abdomen limited to musculoskeletal and neurovascular supply. Letter grading.

154. Cellular Communication and Regulation of Physiological Processes. (4) Lecture, three hours. Limited to students with consent of instructor. Emphasis on cell signaling, with focus on role of receptors, G proteins, and intracellular messengers such as cyclic AMP and calcium. Integration of these concepts with variety of physiological processes, including stimulus-secretion coupling, vascular smooth muscle contraction, and role of growth factors. Emphasis on contemporary scientific research articles used as basis for material presented. Students required to present journal article for discussion. Letter grading.

155. Development and Mechanisms of Musculoskeletal System. (4) Requisite: course 111B. Development, histology, cell biology, and biochemistry of musculoskeletal soft tissues. Integration of knowledge of molecular bases of connective tissue function with emphasis on each of these levels to understand organization and physiological behavior of the intact system.

156. Molecular Mechanisms and Therapies for Muscular Dystrophy. (4) Lecture, three hours; discussion, one hour. Enforced requisites: course 111A (may be taken concurrently), Life Sciences 4 with grade of B or better. Causes and pathogenesis of Duchenne muscular dystrophy and some fundamental scientific findings underpinning therapies aimed at individual stages of pathogenic disease as method to develop critical expert-like thinking skills. Lectures based on experiments from primary scientific literature expected to understand genetic and phenotypic animal models of muscular dystrophy, to design experiments, and to predict outcomes from research data. Letter grading.

165. Comparative Animal Physiology. (5) Lecture, three hours; lab, one hour. Requisites: Life Science 1, 2, 3, and 23L, or 7A, 7B, 7C, and 23L. Physiological response and function at molecular, cellular, tissue, and whole organism levels of variety of animals in response to environmental conditions. Major topics include neural and muscular structure and function, hormones, gas exchange, energetics, and thermoregulation. Examination of wide variety of vertebrates and invertebrates to understand how animals solve physiological challenges presented by physical environment. Letter grading.

166. Animal Physiology. (6) Lecture, three hours; lab, one hour. Requisites: Chemistry 14B and 14BL, or 20B and 30AL, 153A, Life Sciences 7A, 7B, 7C, Physics 1C and 4BL, or 5C. Not for open to students with credit for Ecology and Evolutionary Biology 170 or to Physiological Science majors. Introduction to physiological principles, with emphasis on organ systems and intact organisms. Letter grading.

167. Physiology of Nutrition. (4) Lecture, four hours. Enforced requisites: Chemistry 14A, 14B, and 14C, and 20B or 30AL. Focus on the mechanisms by which Food Science and Technology 170A, 170B, 170C, and 22L, and Physiological Science majors and Food Studies minors. Topics include physiological adaptation to starvation and physiological responses to oxidants/antioxidants, vitamins, minerals, pigments, and antibiotics. Examination of wide variety of vertebrates and invertebrates to understand how animals utilize during aerobic and anaerobic exercise. Letter grading.

M171. Variable Topics Research Seminars: Contempor ary Biology. (2) (Same as Neurobiology M171.) Seminar, two hours. Limited to undergraduate fellows in Integrated and Interdisciplinary Undergraduate Research Program. Presentations of scientific data from primary research articles and from students’ own research. May be repeated for credit. P/NP grading.

173. Anatomy and Physiology of Sense Organs. (4) Lecture, three hours; discussion, one hour. Requisites: course 111A or M180A. Molecules, Cells, and Developmental Biology M175A and M175B. Structure and function of sense organs. Adoption of quantitative and comparative approach to provide insight into evolution of sense organs in both invertebrates and vertebrates. Letter grading.

174. Cell Biophysics in Physiology and Disease. (5) Lecture, three hours; discussion, two hours. Requisites: Chemistry 153A, Life Sciences 2, 3, and 23L, or 7A, 7B, 7C, and 23L. Emphasis on physical principles of cell biology as they have received so much less attention in research. For example, mechanical properties of cells determine how physical forces alter gene expression and can signal

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transformation in physiological state of cells, such as in malignant transformation. Exploration of cell biology in health and disease from basic physical principles that underlie and control function of the neuron. Topics range from examination of how bees and ants signal about food sources to whether structured songs of birds, whales, and monkeys contain compositional elements that contribute to the development of anthropology, biopsychology, linguistics, molecular genetics, neuroscience, and physiology. Letter grading.

M176. Auditory Neuroscience of Speech Perception and Vocal Communication. (4) (Same as Neuroscience M176.) Lecture, two and one-half hours; discussion, one hour. Requisite: course 111A or Neuroscience M101A. Homo sapiens are only species currently on planet to possess language. Exploration of whether other species possess vocal communication blocks for language. Topics range from examination of how bees and ants signal about food sources to whether structured songs of birds, whales, and monkeys contain compositional elements that contribute to the development of anthropology, biopsychology, linguistics, molecular genetics, neuroscience, and physiology. Letter grading.


188A. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilita- tors. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin prepa- ration of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.


188C. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced corequisite: course 188SB. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while writing course indi- vidual contract with faculty mentor required. May not be repeated. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Des- signed as adjunct to upper-division lecture course. Indi- vidual study with focus on innovative and advanced topics in greater depth through supplemental read- ings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract re- quired. Honors content noted on transcript. Letter grading.


191H. Honors Seminars: Current Topics in Physiolo-gy. (4) Seminar, four hours. Requisites or corequisites: courses 198A, 198B, or 198C. Limited to seniors. Supple- mentary study with focus on innovative and advanced topics in greater depth through supplemental read- ings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract re- quired. Honors content noted on transcript. Letter grading.


194A. Research Group Seminars: Physiological Sci- ence. (2) Seminar, two hours. Required of undergrad- uate students in research traineeships such as MARC and UC Leads programs. Discussion of research methods and current literature in field or of research of faculty members or students. May be repeated for credit. Letter grading.

194B. Research Group Seminars: Physiological Sci- ence. (1) Seminar, two hours. Required of undergrad- uate students in research traineeships such as MARC and UC Leads programs. Discussion of research methods and current literature in field or of research of faculty members or students. May be repeated for credit. Letter grading.

195. Field Studies in Physiological Science. (4) Tuto- rial, one hour; fieldwork, eight hours. Limited to se- niors. Supervised field study of topics related to careers re- lated to physiological science. May not be repeated for credit and may not be applied toward elective re- quirements for major. Individual contract with super- vising faculty member required. Letter grading.

196. Research Apprenticeship in Physiological Sci- ence. (2 to 4) Tutorial, three hours per week per unit. Limited to juniors/seniors. Entry-level apprenticeship program for undergraduate students under supervision of graduate faculty mentor. May be repeated for credit; consult department. Individual contract required. P/NP grading.

198A. Honors Research in Physiological Science. (4) Tutorial, 12 hours. Requisites: courses 111A, 111B, 133 (193 may be taken concurrently). Limited to junior/ senior physiological science honors program students. Directed independent research for depart- mental honors with faculty member, involving defini- tion of research topic and extensive reading and re- search in field of proposed honors thesis. May be repeated for credit. Individual contract required. In Physiological Science degree can be given only on comple- tion of course 198B).

198B. Honors Research in Physiological Science. (4) Tutorial, 12 hours. Requisites: courses 198A, 198B, 198C may be repeated for credit. Limited to junior/senior physiological science honors program students. Cont- inued reading and research that culminate in final honors thesis. May be repeated for credit. Individual contract required. Letter grading.
Graduate Courses

200. Advanced Experimental Statistics. (4) Lecture, four hours; laboratory, one hour. Introduction to statistics with focus on computer simulation instead of formulas. Bootstrap and Monte Carlo methods introduced to analyze physiological data. S/U or letter grading.

M202. Cellular Neurophysiology. (Same as Neuroscience M200F and Neuroscience M202F.) Lecture, three hours; discussion, two hours. Required: courses 111A or M180A or Physics 5C, 166. Advanced course in cellular physiology of neurons. Action and membrane potentials, channels and channel blockers, gates, ion pumps and neuronal homeostasis, synaptic receptors, receptor-receptor interactions, transmitter release, modulation by second messengers, and sensory transduction. Letter grading.

M210. Molecular and Cellular Mechanisms of Neu- ronal Integration. (Same as Neuroscience M210T and Physiology M210T.) Lecture, four hours; discussion, one hour. Required: Neuroscience M202. Introduction to mechanisms of synaptic processing. Selected problems of current interest, including regulation and modulation of transmitter release, molecular biology and physiology of receptors, cellular basis of integration in sensory perception and learning, neural nets and organizing principles in development and sexual differentiation. Letter grading.

211. Exercise Cardiovascular Physiology. (4) Attention to cardiovascular adaptations to acute exercise as well as adaptations associated with regular exercise training.

215. Molecular and Cellular Foundations of Physiol- ogy. (5) Lecture, three hours; discussion, two hours. Application of molecular and cellular approaches to systems level questions. Basic foundation for study of major physiological systems, with emphasis on levels of organization from molecular to macroscopic. Letter grading.

CM223. Neurobiology of Sleep. (Same as Neuroscience CM223.) Lecture, three hours; discussion, one hour. Detailed look into science of sleep. Cellular and molecular mechanisms of falling asleep, many discrete brain structures involved in control of sleep wakefulness. Regulation of sleep, interpretation of sleep stages. How our sleep needs shaped by our evolutionary history, age, and gender. Latest insights into question of function of sleep, critical role sleep plays in memory formation and, close association between sleep and metabolism. Sleep disorders are considered as they provide insights into mechanisms underlying sleep. For background on science of sleep and circadian rhythms, course CM226 is recommended. Concurrently scheduled with course CM123. Letter grading.

CM226. Biological Clocks. (4) Lecture, three hours; discussion, one hour. Required: courses 111A and 111B, 198C, and M180A or M180B. Most organisms, including humans, exhibit daily rhythms in physiology and behavior. In many cases these rhythms are generated from within organisms and are called circadian rhythms. Biological basis of these daily rhythms or circadian oscillations. Exploration of molecular, cellular, and system-level organization of these timing systems and their control mechanisms. Discussion in maintaining homeostatic mechanisms of body and impact on nervous system. Concurrently scheduled with course C126. Letter grading.


250A. Muscle Dynamics. (4) Lecture, four hours. Required: course 111B, Life Sciences 7A, 7B, 7C. Investigation of biological origins of sex differences in physiology (mostly vertebrate), and susceptibility to disease, including history of development of concepts to define sex, and intersex and gender difference in reproductive and other system functions. Emphasis on basic research on the molecular and cellular basis of sex. Letter grading.


C260. Sex Differences in Physiology and Disease. (4) Lecture, three hours. Required: course 111B, Life Sciences 7A, 7B, 7C. Exploration of biological origins of sex differences in physiology (mostly vertebrate), and susceptibility to disease, including history of development of concepts to define sex, and intersex and gender difference in reproductive and other system functions. Emphasis on basic research on the molecular and cellular basis of sex. Letter grading.

272. Neuroimaging and Brain Mapping. (4) Same as Neuroscience CM272 and Psychology M213.) Lecture, four hours; laboratory, two hours. Examination of art and making and evaluating dynamical models of physiological systems and of dynamical systems inherent in physiological systems. Letter grading.


C244. Neural Control of Physiological Systems. (4) Lecture, four hours. Required: course 111B or M180B. Role of central nervous system in control of respiration, circulation, sexual function, and bladder control. Material required for examination to be developed by combina- tion of lecture and open discussion. Concurrently scheduled with course C144. Letter grading.

245. Neural Mechanisms Controlling Movement. (5) Lecture, four hours. Required: course 111A or M180A or Neuroscience M101A. Examination of central nervous system organization required for production of complex movements such as locomotion, mastication, and swallowing. Letter grading.

250A. Muscle Dynamics. (4) Lecture, four hours. Integrated study of electrical and dynamic parameters of muscle-action, including topics in length-tension and force-velocity interrelationships; critical analysis of electromyographic and digital computer techniques. Letter grading.


263. Neuronal Mechanisms Controlling Rhythmic Movements. (4) Lecture, four hours. Required course M145. Advanced topics on brainstem mechanisms responsible for controlling cyclic and stereotypic movements such as mastication and locomotion. Emphasis on functional neurophysiology and neural mechanisms underlying the behavior. Introduction to primary literature and techniques used in these areas. Students expected to critically evaluate data and conclusions drawn. S/U or letter grading.

270A-270B. Modern Concepts in Physiology. (4–4) Lecture, two hours; discussion, two hours. Study and evaluation of primary research literature. Study of focus on topics of modern research. Introduction to research, analysis of research design. Letter grading.

270A. Highly recommended requisite or corequisite: course 111A. Foundation for experimental study of principles of muscular and neural physiology and cellular and systems neuroendocrinology, including factors controlling membrane excitation, neuronal circuits, sensory-motor regulation, special senses, cortical function, and neural control. Highly recommended requisite or corequisite: course 111B. Foundation for experimental study of principles of systems physiology, including endocrinology, transport physiology, and neural, cardiovascular, and pulmonary physiology.


289A–289B. Honing Your Skills as Researcher in Integrative Biology and Physiology. (2–3) Seminar, one hour. Limited to graduate students in Physiological Science master’s program. Scientific method and analytical tools of research in physiology and biology; evaluation of research literature in physiology, scientific communication—written and oral presentations; scientific ethics; and professional development. Writing curriculum vitae (CV) and cover letter. Letter grading.

289B. Required: course 289A.

M290. Seminar: Comparative Physiology. (Same as Ecology and Evolutionary Biology M290.) Seminar, two and one half hours. Discussion of specific topics in comparative physiology of animals. Topics vary from year to year, with emphasis on systems physiology, neuroendocrinology, or behavioral physiology. S/U or letter grading.

291A–291B–291C. Seminars: Cardiovascular Func- tion and Adaptation. (2 to 4 each) Seminar, two to four hours. Selected topics on cardiovascular function and adaptation. Students required to present two-hour seminar presentation. Letter grading.

292. Evolution and Development of Auditory Sys- tem. (2 or 4) Seminar, two hours. Discussion of specific topics related to evolution, embryology, morpho- genesis, cytodifferentiation, and onset of function of auditory system, with special attention to centrifugal and centripetal pathways. Emphasis on primary literature sources as
well as current methodological approaches. Two-hour seminar presentation required for 2 units; seminar paper and two-hour seminar presentation required for 4 units. S/U or letter grading.

293A-293B-293C. Seminars: Musculoskeletal Function and Adaptation. (2 to 4 each) Seminar, one hour. Requisites: courses 138, 260. Selected topics on muscular determinants of movement, metabolic aspects of exercise, and mechanics of connective tissue. Students required to present two-hour seminar. S/U or letter grading.

294. Recent Advances in Neurophysiology. (1) Seminar, one hour. Requisite: Life Sciences 2 or under-graduate degree in science. Critical examination and discussion of recent data and publications that focus on synaptic function. Student presentations, readings, and participation in discussions required. S/U grading.


296. Research Seminar: Physiological Science. (2) Review of literature, discussion of original research, and analysis of current topics in physiological science. May not be applied toward MS or PhD course requirements. May be repeated for credit. S/U grading.

297. Seminar: Muscle Cell Biology. (2 to 4) Seminar, two hours. Selected topics in muscle cell biology. Students required to present two-hour seminar. May be repeated for credit. S/U grading.

298. Seminar: Nervous System Development. (1 to 2) Seminar, two hours. Selected topics in developmental neurobiology, such as neuronal migration, axonal guidance, gene expression, and synaptogenesis. Weekly primary literature student presentations. One-hour seminar presentation on assigned weekly reading required of all students; students enrolled for 2 units must also complete written analysis of additional primary literature papers. May be repeated for credit. S/U or letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

495. In-Service Practicum for Teaching Assistants in Physiological Science. (2) Seminar, to be arranged. Required of all teaching assistants. Supervised practicum in teaching laboratory courses in physiological science material and use of teaching aids. May not be applied toward degree requirements. S/U grading.

501. Cooperative Program. (2 to 8) Preparation: consent of UCLA graduate adviser and graduate dean, and host department chair, and graduate dean. Used to record enrollment of UCLA students in courses taken under cooperative arrangements with USC. S/U grading.

595. Research for and/or Preparation of PhD Dissertation. (2 to 16) Tutorial, to be arranged. May not be applied toward MS course requirements. May be repeated as necessary. S/U grading.

INTERNATIONAL AND AREA STUDIES

Interdepartmental Program College of Letters and Science

10256 Bunche Hall Box 951487 Los Angeles, CA 90095-1487

International and Area Studies 310-206-6571 Program e-mail

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Jennifer J. Jung-Kim, PhD (Asian Languages and Cultures)
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Adam D. Moore, PhD (Geography)
Helen M. Rees, PhD (Ethnomusicology)
Bonnie Taub, PhD (Anthropology, Community Health Sciences)
Kevin B. Terraciano, PhD (History)
Michael F. Thies, PhD (Political Science)

Overview

The International Institute offers a variety of area studies majors and minors through the International and Area Studies Interdepartmental Program (IDP). The overarching goal of each of these programs is to address the need for students to have a broad understanding of the international nature of the world and guide them through a course of study that allows them to apply that knowledge to a particular region of interest. The majors are structured so that area-specific content proceeds in tandem with instruction in the humanities and social sciences disciplines that provide the tools for analyzing the cultures, social structures, politics, and histories of the regional areas.

Emphasizing the contemporary world since 1750, the majors establish a common conceptual and thematic basis for study of regional areas. Students take a common core course that illuminates the international character of the contemporary world and introduces a set of contemporary issues and challenges that cross borders and regions. Thematic and conceptual courses equip students with a variety of disciplinary tools they can use to study a particular area or region. Studies culminate in a capstone seminar.

Undergraduate Study

Students considering a major or minor in the interdepartmental program should consult with the academic counselor as soon as possible in their UCLA career, but in no case later than the point at which they are about to begin taking upper-division courses. Students should select courses to fulfill major or minor requirements in consultation with the academic counselor.

Undergraduate Majors

African and Middle Eastern Studies BA

The African and Middle Eastern Studies major allows students to analyze the area or a sub-region (e.g., Middle East, North Africa, Arab states, sub-Saharan Africa) from an interdisciplinary and modern perspective. The major seeks to ground students in broad international issues that they can then use to focus on particular concerns of that part of the world.

Study Abroad

African and Middle Eastern Studies majors are highly encouraged to study abroad. Students can travel to all areas through a variety of programs with various lengths (summer or during the academic year).

Students may partially fulfill the area studies elective requirement by participating in an International Institute Summer Travel Study program consisting of two courses in and on a particular region of the world. Contact the academic counselor for more information on available programs.

More information about study abroad programs is available through the UCLA International Education Office by e-mail, in person at 1332 Murphy Hall, or by phone at 310-825-4995.

Capstone Major

The African and Middle Eastern Studies major is a designated capstone major. Students must complete a capstone seminar or study-abroad program in which they engage in an in-depth analysis of a specific region or a thematic subject that spans regions. Through conceiving and executing a project, students demonstrate their working knowledge of scholarly discourse relative to a specialized topic. Student research, analytic, and writing skills are exhibited through their capstone work, along with their collaborative and oral communication skills.

Learning Outcomes

The African and Middle Eastern Studies major has the following learning outcomes:

- In-depth analysis of a specific region or a thematic subject that spans regions
- Demonstrated critical understanding of issues relevant to a specific region or theme
- Demonstrated skills, including research, analysis, and writing
- Identification and analysis of appropriate sources, material evidence, and other forms of primary documents
- Demonstrated proficiency at collaborative engagement with peers through constructive
feedback on written drafts and oral presentations
• Demonstrated proficiency at using peer feedback to enhance student’s own work
• Effective communication of complex ideas in a seminar setting
• Demonstrated effective oral and written communication of research findings
• Conception and execution of a project that identifies and engages with a specialized topic
• Working knowledge of scholarly discourse relative to a specialized topic

Entry to the Major
Admission
To be eligible to declare the African and Middle Eastern Studies major, students must have completed all nonlanguage preparation for the major courses and the foreign language courses through at least level 3 (elementary level). Any remaining language courses may be completed after students have been accepted to the major.

Pre-major
Incoming first-year and transfer students may be admitted as African and Middle Eastern Studies pre-majors on acceptance to UCLA. Pre-major students must apply for major standing at the end of fall quarter of their junior year; they are not automatically accepted into the major.

Transfer Students
Transfer applicants to the African and Middle Eastern Studies pre-majors on acceptance to UCLA. Pre-major students must apply for major standing at the end of fall quarter of their junior year; they are not automatically accepted into the major.

Entry to the Major
Admission
To be eligible to declare the African and Middle Eastern Studies major, students must have completed all nonlanguage preparation for the major courses and the foreign language courses through at least level 3 (elementary level). Any remaining language courses may be completed after students have been accepted to the major.

Pre-major
Incoming first-year and transfer students may be admitted as African and Middle Eastern Studies pre-majors on acceptance to UCLA. Pre-major students must apply for major standing at the end of fall quarter of their junior year; they are not automatically accepted into the major.

Transfer Students
Transfer applicants to the African and Middle Eastern Studies pre-major with 90 or more units must complete the following introductory level courses from sociocultural anthropology, cultural geography, contemporary world history, and world literature and two courses from comparative politics, economic geography, macroeconomics, microeconomics, and introductory sociology. Transfer students must apply for the major by the end of fall quarter of their junior year.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Policies
Each preparation for the major course must be taken for a letter grade, and students must have a UC grade-point average of 2.0 or better in those courses. In addition, students must have earned a grade of C or better in International and Area Studies 1.

Requirements
Preparation for the Major
Required: (1) International and Area Studies 1, (2) one area studies course from Art History 28, History 9D, 10B, 97F, 97J, Middle Eastern Studies M50CW, or Portuguese 40A, (3) two international politics and markets courses from Economics 1, 2, Geography 4, 6, Political Science 50 (or 50R), Sociology 1, (4) two international societies and cultures courses from Anthropology 3, Comparative Literature 1D (or 2D or 4D), Ethnomusicology 5, M25, Geography 3, History 2B, 22, World Arts and Cultures 20, 33, and (5) one area-related foreign language sequence through the intermediate level (e.g., Arabic 102C, Armenian 102C, Hebrew 102C, Iranian 102C, Turkic Languages 102C, 112C, 116C). The language requirement can also be fulfilled in part or in total by taking a placement examination given through the appropriate language department.

The Major
The major consists of International and Area Studies 191 (capstone seminar) and 11 upper-division courses divided among area studies and international themes courses. International and Area Studies 191 (capstone seminar) and 11 upper-division courses divided among area studies and international themes courses. International and Area Studies 191 (capstone seminar) and 11 upper-division courses divided among area studies and international themes courses. International and Area Studies 191 (capstone seminar) and 11 upper-division courses divided among area studies and international themes courses. International and Area Studies 191 (capstone seminar) and 11 upper-division courses divided among area studies and international themes courses.
Asian Studies BA

The Asian Studies major allows students to analyze the area or a subregion (e.g., Central Asia, East Asia, South Asia, Southeast Asia) from an interdisciplinary and modern perspective. The major seeks to ground students in broad international issues that they can then use to focus on particular concerns of that part of the world.

Study Abroad

Asian Studies majors are highly encouraged to study abroad. Students can travel to all areas through a variety of programs with various lengths (summer or during the academic year).

Students may partially fulfill the area studies elective requirement by participating in an International Institute Summer Travel Study program consisting of two courses in and on a particular region of the world. Contact the academic counselor for more information on available programs.

More information about study abroad programs is available through the UCLA International Education Office by e-mail, in person at 1332 Murphy Hall, or by phone at 310-825-4995.

Capstone Major

The African Studies major is a designated capstone major. Students must complete a capstone seminar or study-abroad program in which they engage in an in-depth analysis of a specific region or a thematic subject that spans regions. Through conceiving and executing a project, students demonstrate their working knowledge of scholarly discourse relative to a specialized topic. Student research, analytic, and writing skills are exhibited through their capstone work, along with their collaborative and oral communication skills.

Learning Outcomes

The Asian Studies major has the following learning outcomes:

- In-depth analysis of a specific region or a thematic subject that spans regions
- Demonstrated critical understanding of issues relevant to a specific region or theme
- Demonstrated skills, including research, analysis, and writing
- Identification and analysis of appropriate sources, material evidence, and other forms of primary documents
- Demonstrated proficiency at collaborative engagement with peers through constructive feedback on written drafts and oral presentations
- Demonstrated proficiency at using peer feedback to enhance student’s own work
- Effective communication of complex ideas in a seminar setting
- Demonstrated effective oral and written communication of research findings
- Conception and execution of a project that identifies and engages with a specialized topic
- Working knowledge of scholarly discourse relative to a specialized topic

Entry to the Major

Admission

To be eligible to declare the Asian Studies major, students must have completed all non-language preparation for the major courses and the foreign language courses through at least level 3 (elementary level). Any remaining language courses may be completed after students have been accepted to the major.

Pre-major

Incoming first-year and transfer students may be admitted as Asian Studies pre-majors on acceptance to UCLA. Pre-major students must apply for major standing at the end of fall quarter of their junior year; they are not automatically accepted into the major.

Transfer Students

Transfer applicants to the Asian Studies pre-major with 90 or more units must complete the following introductory courses prior to admission:

- At least two lower division courses from sociocultural anthropology, cultural geography, contemporary world history, and world literature and two courses from comparative politics, economic geography, macroeconomics, microeconomics, and introductory sociology. Transfer students must apply for the major by the end of fall quarter of their junior year.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Policies

Each preparation for the major course must be taken for a letter grade, and students must have a UC grade-point average of 2.0 or better in those courses. In addition, students must have earned a grade of C or better in International and Area Studies 1.

Requirements

Preparation for the Major

Required: (1) International and Area Studies 1, (2) one area studies course from Art History 29, 31, Asian 30, Chinese 40, 50 (or 50W), M60 (or M60W), 80, Clusters 25A, History 9A, 9C, 9E, 11B (or 11BH), 97G, 97M, 97N, International and Area Studies 31, 33, Japanese 50, 70, 75, 80, Korean 40W, 50, M60, 70, 80, South Asian M60, Southeast Asian M20, 50, 70, or Vietnamese 40, (3) two international politics and markets courses from Economics 1, 2, Geography 4, 6, Political Science 50 (or 50R), Sociology 1, (4) two international societies and cultures courses from Anthropology 3, Comparative Literature 1D (or 2DW or 4DW), Ethnomusicology 5, M25, Geography 3, History 28B, 22, World Arts and Cultures 20, 33, and (5) one area-related foreign language sequence through the intermediate level (e.g., Chinese 6 or 6A, Filipino 6, Hindi-Urdu 100C, Indonesian 6, Japanese 6, Korean 6, Thai 6, Vietnamese 6). The language requirement can also be fulfilled in part or in total by taking a placement examination given through the appropriate language department.

The Major

The major consists of International and Area Studies 191 (capstone seminar) and 11 upper-division courses divided among area studies and international themes courses.


Honors Program

The honors program is designed to offer highly motivated majors the opportunity to design and conduct their own independent research under the guidance of a faculty adviser and consists of a three-term directed-study series of courses—International and Area Studies 198A, 198B, 198C—culminating in an honors thesis.

Policies

Preparation for the Major

Each course must be taken for a letter grade.

The Major

To count as one 4-unit course, 2-unit courses must either be taken twice or two courses from the same category (if applicable) may be taken. Each course must be taken for a letter grade, with a minimum overall grade-point average of 2.0.

Honors Program

Admission

To enter the honors program, students must (1) have completed all preparation for the major requirements with a minimum 3.5 grade-point average in those courses, (2) have a 3.5 grade-point average in all upper-division coursework for the major, (3) obtain agreement from a faculty member to supervise their honors thesis, and (4) formally submit an application to the honors program. Application should normally be made during the junior year so as to best plan for completion of the honors thesis during the senior year. Contact the academic counselor for more details about the application, thesis requirements, and guidelines regarding the selection of a faculty thesis adviser.

Requirements

Honors are awarded to students who (1) complete all requirements for the major with a cumulative grade-point average of 3.5 or better in upper-division courses required for the major, (2) successfully complete courses 198A, 198B, and 198C, and (3) produce an honors thesis (approximately 35 to 50 pages) determined to be of honors quality by a committee of two faculty members—the chair of International and Area Studies and the faculty adviser of the student.

Highest honors are awarded to students who (1) complete all requirements for the major with a cumulative grade-point average of 3.75 or better in upper-division courses required for the major, (2) successfully complete courses 198A, 198B, and 198C, and (3) produce an exceptional honors thesis (approximately 35 to 50 pages) determined to be of highest honors quality by a committee of two faculty members—the chair of International and Area Studies and the faculty adviser of the student.

Honors and highest honors are recorded on the final transcript and diploma after students successfully complete the program.

European Studies BA

The European Studies major allows students to analyze the area or a subregion (e.g., Central and Eastern Europe, Mediterranean Europe, Scandinavia, Western Europe/European Union) from an interdisciplinary and modern perspective. The major seeks to ground students in broad international issues that they can then use to focus on particular concerns of that part of the world.

Capstone Major

The European Studies major is a designated capstone major. Students must complete a capstone seminar or study-abroad program in which they engage in an in-depth analysis of a specific region or a thematic subject that spans regions. Through conceiving and executing a project, students demonstrate their working knowledge of scholarly discourse relative to a specialized topic. Student research, analytic, and writing skills are exhibited through their capstone work, along with their collaborative and oral communication skills.

Study Abroad

European Studies majors are highly encouraged to study abroad. Students can travel to all areas through a variety of programs with various lengths (summer or during the academic year). Students may partially fulfill the area studies elective requirement by participating in an International Institute Summer Travel Study Program consisting of two courses in and on a particular region of the world. Contact the academic counselor for more information on available programs.

More information about study abroad programs is available through the UCLA International Education Office by e-mail, in person at 1332 Murphy Hall, or by phone at 310-825-4995.

Learning Outcomes

The European Studies major has the following learning outcomes:

- In-depth analysis of a specific region or a thematic subject that spans regions
- Demonstrated critical understanding of issues relevant to a specific region or theme
- Demonstrated skills, including research, analysis, and writing
- Identification and analysis of appropriate sources, material evidence, and other forms of primary documents
- Demonstrated proficiency at collaborative engagement with peers through constructive feedback on written drafts and oral presentations
- Demonstrated proficiency at using peer feedback to enhance student’s own work
- Effective communication of complex ideas in a seminar setting
- Demonstrated effective oral and written communication of research findings
- Conception and execution of a project that identifies and engages with a specialized topic
- Working knowledge of scholarly discourse relative to a specialized topic

Entry to the Major

Admission

To be eligible to declare the European Studies major, students must have completed all non-language preparation for the major courses and the foreign language courses through at least level 3 (elementary level). Any remaining language courses may be completed after students have been accepted to the major.

Pre-major

Incoming first-year and transfer students may be admitted as European Studies pre-majors on acceptance to UCLA. Pre-major students must apply for major standing at the end of fall quarter of their junior year; they are not automatically accepted into the major.

Transfer Students

Transfer applicants to the European Studies pre-major with 90 or more units must complete the following introductory courses prior to admission to UCLA: two courses from sociocultural anthropology, cultural geography, contemporary world history, and world literature and two courses from comparative politics, economics, and introductory sociology. Transfer students must apply for the major by the end of fall quarter of their junior year.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Policies

Preparation for the Major

Required: (1) International and Area Studies 1, (2) one area studies course from Central and East European Studies, Comparative Literature 1C, 2CW, 4CW, Dutch 10, English 88G, French 12, 14 (or 14W), 41, 60, German 50B, 59, 61A, History 1C (or 1CH), 97C, International and Area Studies 40, Italian 42B, 46, 50B, Portuguese 40A, Romanian 90, Russian 25 (or 25W), 30, 51, 52, 90B (or 90BW), Scandinavian 50 (or 50W), Slavic 90, Spanish 42, (3) two international politics and markets courses from Economics 1, 2, Geography 4, 6, Political Science 50 (or 50R), Sociology 1, (4) two international societies and cultures courses from Anthropology 3, Comparative Literature 1D (or 2DW or 4DW), Ethnomusicology 5, M25, Geography 3, History 2B, 2Z, World Arts and Cultures 2B, 33, and (5) one area-related foreign language sequence through the intermediate level (e.g., Czech 102C, Dutch 103C, French 6, German 6, Hungarian 102C, Italian 6, Polish 102C, Portuguese 3, Romanian 102C, Russian 6, Scandinavian 5, Serbian/Croatian 102C, Spanish 5, Ukrainian 102C, Yiddish 102C). The language requirement can also be fulfilled in part or in total by taking a placement examina-
tion given through the appropriate language department.

**The Major**

The major consists of International and Area Studies 191 (capstone seminar) and 11 upper-division courses divided among area studies and international theme courses.

**Area Studies:** (1) Three humanities and arts group 1 courses from Art History 127B, M127C, Central and East European Studies 125, C126, Comparative Literature C163, C164, Dutch 113, 131, English 115B, 164A, 164B, 164C, Ethnomusicology 133, Film and Television 106B, French 114C, 119, 120, 138, 139, 141, German 102, 103, 104, 110, 112, 173, Italian 102C, 120, 121, 150, M158, 139, 141, German 102, 103, 104, 110, 112, 173, Italian 102C, 120, 121, 150, M158, Polish 152B, 152C, Russian 107B, 120, 121, 122, 125, 126, M127, 128, 130A, 130B, 130C, 131, M132, 140A through 140D, 150, Scandi

**Policies**

**Preparation for the Major**

Each course must be taken for a letter grade.

**The Major**

To count as one 4-unit course, 2-unit courses may either be taken twice or two courses from the same category (if applicable) may be taken. Each course must be taken for a letter grade, with a minimum overall grade-point average of 2.0.

**Honors Program**

**Admission**

To enter the honors program, students must (1) have completed all preparation for the major requirements with a minimum 3.5 grade-point average in those courses, (2) have a 3.5 grade-point average in all upper-division coursework for the major, (3) obtain agreement from a faculty member to supervise their honors thesis, and (4) formally submit an application to the honors program. Application should normally be made during the junior year so as to be best plan for completion of the honors thesis during the senior year. Contact the academic counselor for more details about the application, thesis requirements, and guidelines regarding the selection of a faculty thesis adviser.

**Requirements**

Honors are awarded to students who (1) complete all requirements for the major with a cumulative grade-point average of 3.5 or better in upper-division courses required for the major, (2) successfully complete courses 198A, 198B, and 198C, and (3) produce an excep-

**Capstone Major**

The Latin American Studies major is a designated capstone major. Students must complete a capstone seminar or study-abroad program in which they engage in an in-depth analysis of a specific region or a thematic subject that spans regions. Through conceiving and executing a project, students demonstrate their working knowledge of scholarly discourse relative to a specialized topic. Student research, analytic, and writing skills are exhibited through their capstone work, along with their collaborative works.

**Learning Outcomes**

The Latin American Studies major has the following learning outcomes:

- In-depth analysis of a specific region or a thematic subject that spans regions
- Demonstrated critical understanding of issues relevant to a specific region or theme
- Demonstrated skills, including research, analysis, and writing
- Identification and analysis of appropriate sources, material evidence, and other forms of primary documents
- Demonstrated proficiency at collaborative engagement with peers through constructive feedback on written drafts and oral presentations
- Demonstrated proficiency at using peer feedback to enhance student’s own work
- Effective communication of complex ideas in a seminar setting
- Demonstrated effective oral and written communication of research findings
- Conception and execution of a project that identifies and engages with a specialized topic
- Working knowledge of scholarly discourse relative to a specialized topic

**Latin American Studies BA**

The Latin American Studies major allows students to analyze the area or a subregion (e.g., Amazonia, Caribbean, Central America, South America, Southern Cone) from an interdisciplinary and modern perspective. The major seeks to ground students in broad international issues that they can then use to focus on particular concerns of that part of the world.

**Study Abroad**

Latin American Studies majors are highly encouraged to study abroad. Students can travel to all areas through a variety of programs with various lengths (summer or during the academic year).

Students may partially fulfill the area studies elective requirement by participating in an International Institute Summer Travel Study program consisting of two courses in and on a particular region of the world. Contact the academic counselor for more information on available programs.

More information about study abroad programs is available through the UCLA International Education Office by e-mail, in person at 1332 Murphy Hall, or by phone at 310-825-4995.

**Honors Program**

Each course must be taken for a letter grade.

**The Major**

To count as one 4-unit course, 2-unit courses may either be taken twice or two courses from the same category (if applicable) may be taken. Each course must be taken for a letter grade, with a minimum overall grade-point average of 2.0.

**Honors Program**

**Admission**

To enter the honors program, students must (1) have completed all preparation for the major requirements with a minimum 3.5 grade-point average in those courses, (2) have a 3.5 grade-point average in all upper-division coursework for the major, (3) obtain agreement from a faculty member to supervise their honors thesis, and (4) formally submit an application to the honors program. Application should normally be made during the junior year so as to be best plan for completion of the honors thesis during the senior year. Contact the academic counselor for more details about the application, thesis requirements, and guidelines regarding the selection of a faculty thesis adviser.

**Requirements**

Honors are awarded to students who (1) complete all requirements for the major with a cumulative grade-point average of 3.5 or better in upper-division courses required for the major, (2) successfully complete courses 198A, 198B, and 198C, and (3) produce an excep-

**Capstone Major**

The Latin American Studies major is a designated capstone major. Students must complete a capstone seminar or study-abroad program in which they engage in an in-depth analysis of a specific region or a thematic subject that spans regions. Through conceiving and executing a project, students demonstrate their working knowledge of scholarly discourse relative to a specialized topic. Student research, analytic, and writing skills are exhibited through their capstone work, along with their collaborative works.

**Learning Outcomes**

The Latin American Studies major has the following learning outcomes:

- In-depth analysis of a specific region or a thematic subject that spans regions
- Demonstrated critical understanding of issues relevant to a specific region or theme
- Demonstrated skills, including research, analysis, and writing
- Identification and analysis of appropriate sources, material evidence, and other forms of primary documents
- Demonstrated proficiency at collaborative engagement with peers through constructive feedback on written drafts and oral presentations
- Demonstrated proficiency at using peer feedback to enhance student’s own work
- Effective communication of complex ideas in a seminar setting
- Demonstrated effective oral and written communication of research findings
- Conception and execution of a project that identifies and engages with a specialized topic
- Working knowledge of scholarly discourse relative to a specialized topic

**Latin American Studies BA**

The Latin American Studies major allows students to analyze the area or a subregion (e.g., Amazonia, Caribbean, Central America, South America, Southern Cone) from an interdisciplinary and modern perspective. The major seeks to ground students in broad international issues that they can then use to focus on particular concerns of that part of the world.

**Study Abroad**

Latin American Studies majors are highly encouraged to study abroad. Students can travel to all areas through a variety of programs with various lengths (summer or during the academic year).

Students may partially fulfill the area studies elective requirement by participating in an International Institute Summer Travel Study program consisting of two courses in and on a particular region of the world. Contact the academic counselor for more information on available programs.

More information about study abroad programs is available through the UCLA International Education Office by e-mail, in person at 1332 Murphy Hall, or by phone at 310-825-4995.
Entry to the Major

Admission
To be eligible to declare the Latin American Studies major, students must have completed all nonlanguage preparation for the major courses and the foreign language courses through at least level 3 (elementary level). Any remaining language courses may be completed after students have been accepted to the major.

Pre-major
Incoming first-year and transfer students may be admitted as Latin American Studies pre-majors on acceptance to UCLA. Pre-major students must apply for major standing at the end of fall quarter of their junior year; they are not automatically accepted into the major.

Transfer Students
Transfer applicants to the Latin American Studies pre-major with 90 or more units must complete the following introductory courses prior to admission to UCLA: two courses from socio-cultural anthropology, cultural geography, contemporary world history, and world literature and two courses from comparative politics, economic geography, macroeconomics, microeconomics, and introductory sociology. Transfer students must apply for the major by the end of fall quarter of their junior year.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Policies
Each preparation for the major course must be taken for a letter grade, and students must have a UC grade-point average of 2.0 or better in those courses. In addition, students must have earned a grade of C or better in International and Area Studies 1.

Requirements
Preparation for the Major
Required: (1) International and Area Studies 1, (2) one area studies course from History 8A (or 8AH), 8B, 8C, 97E, International and Area Studies 50, Portuguese 40B, 46, Spanish 44, (3) two international politics and markets courses from Anthropology 6, Comparative Literature 1D (or 2DW or 4DW), Ethnomusicology 5, M23, Geography 2, History 2B, 22, World Arts and Cultures 20, 33, and (5) two area-related foreign language sequences through the intermediate level (e.g., Portuguese 3 or 11B, Spanish 5 or 7A, an indigenous language of Latin America such as Nahua, Quechua, or Zapoteco, through that level). The language requirement can also be fulfilled in part or in total by taking a placement examination given through the appropriate language department.

The Major
The major consists of International and Area Studies 191 (capstone seminar) and 11 upper-division courses divided among area studies and international themes courses.


The area studies electives listed above (group I) focus on contemporary issues of that region after 1750. Students may substitute a maximum of three upper-division courses with focus on earlier historical aspects of the region or on diasporas with origins related to the region toward the area studies electives as long as the distribution between humanities and arts and social sciences is maintained. They may be selected from either of the following lists: humanities and arts group 2: Art History CM139A, C139B, CM141, Chicana/o and Central American Studies M105D, M105E, 109, 142, Ethnomusicology M116, Portuguese 143A, or social sciences group 2: Anthropology 114P, 114Q, Chicana/o and Central American Studies M119, M159B, 184, M187, History 157B.

Each course must be taken for a letter grade, with a minimum overall grade-point average of 2.0.

Honors Program
Admission
To enter the honors program, students must (1) complete all preparation for the major requirements with a minimum 3.5 grade-point average in those courses, (2) have a 3.5 grade-point average in all upper-division coursework for the major, (3) obtain agreement from a faculty member to supervise their honors thesis, and (4) formally submit an application to the honors program. Application should normally be made during the junior year so as to best plan for completion of the honors thesis during the senior year. Contact the academic counselor for more details about the application, thesis requirements, and guidelines regarding the selection of a faculty thesis adviser.

Requirements
Honors are awarded to students who (1) complete all requirements for the major with a cumulative grade-point average of 3.5 or better in upper-division courses required for the major, (2) successfully complete courses 198A, 198B, and 198C, and (3) produce an honors thesis (approximately 35 to 50 pages) determined to be of honors quality by a committee of two faculty members—the chair of International and Area Studies and the faculty adviser of the student.

Highest honors are awarded to students who (1) complete all requirements for the major with a cumulative grade-point average of 3.75 or better in upper-division courses required for the major, (2) successfully complete courses 198A, 198B, and 198C, and (3) produce an exceptional honors thesis (approximately 35 to 50 pages) determined to be of highest honors quality by a committee of two faculty members—the chair of International and Area Studies and the faculty adviser of the student.

Honors and highest honors are recorded on the final transcript and diploma after students successfully complete the program.

Undergraduate Minors

African and Middle Eastern Studies Minor
The African and Middle Eastern Studies minor is designed for students who wish to augment their major with concerted study of the history, culture, and society of the Africa and the Middle East from an interdisciplinary and modern perspective.

Study Abroad
African and Middle Eastern Studies minors are highly encouraged to study abroad. Students can travel to all areas through a variety of programs with various lengths (summer or during the academic year).

Students may partially fulfill the area studies elective requirement by participating in an International Institute Summer Travel Study pro-
Admission
To enter the minor, students must be in good academic standing (overall grade-point average of 2.0 or better) and have completed all lower-division minor courses with a GPA of 2.0 or better in those courses.

Study Abroad
African Studies minors are highly encouraged to study abroad. Students can travel to all areas through a variety of programs with various lengths (summer or during the academic year). Students may partially fulfill the area studies elective requirement by participating in a Summer Study Abroad program consisting of two courses in and on a particular region of the world. Contact the academic counselor for more information on available programs.

Policies
One upper-division language course (advanced level) may be applied to item 3 above by petition to the chair of the program. A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Study Abroad
African Studies minors study abroad. Students can travel to all areas through a variety of programs with various lengths (summer or during the academic year). Students may partially fulfill the area studies elective requirement by participating in an International Study Abroad summer travel study program consisting of two courses in and on a particular region of the world. Contact the academic counselor for more information on available programs.

Policies
One upper-division language course (advanced level) may be applied to item 3 above by petition to the chair of the program.

Study Abroad
African Studies minors are highly encouraged to study abroad. Students can travel to all areas through a variety of programs with various lengths (summer or during the academic year). Students may partially fulfill the area studies elective requirement by participating in an International Study Abroad summer travel study program consisting of two courses in and on a particular region of the world. Contact the academic counselor for more information on available programs.

Policies
One upper-division language course (advanced level) may be applied to item 3 above by petition to the chair of the program.
Study Abroad

European Studies minors are highly encouraged to study abroad. Students can travel to all areas through a variety of programs with various lengths (summer or during the academic year).

Students may partially fulfill the area studies elective requirement by participating in an International Institute Summer Travel Study program consisting of two courses in and on a particular region of the world. Contact the academic counselor for more information on available programs.

More information about study abroad programs is available through the UCLA International Education Office by e-mail, in person at 1332 Murphy Hall, or by phone at 310-825-4995.

Admission

To enter the minor, students must be in good academic standing (overall grade-point average of 2.0 or better) and have completed all area studies group 1 courses as follows:

1. one course from the Humanities group
2. two courses from the language group
3. one course from the area studies electives listed above (group 2), or from the group 2 list below.

The area studies electives listed above (group 1) focus on contemporary issues of that region after 1750. Students may substitute a maximum of one upper-division course with focus on earlier historical aspects of the region or on diasporas with origins related to the region toward the area studies additional elective category (item 3 above). The course may be selected from the following group 2 list:

- Anthropology 116Q

Policies

One upper-division language course (advanced level) may be applied to item 3 above by petition to the chair of the program.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in those courses.

If a minor student is unable to complete the minor in the academic year:

Students may partially fulfill the area studies elective requirement by participating in an International Institute Summer Travel Study program consisting of two courses in and on a particular region of the world. Contact the academic counselor for more information on available programs.

More information about study abroad programs is available through the UCLA International Education Office by e-mail, in person at 1332 Murphy Hall, or by phone at 310-825-4995.

Admission

To enter the minor, students must be in good academic standing (overall grade-point average of 2.0 or better) and have completed all lower-division minor courses with a GPA of 2.0 or better in those courses.

The Minor

Required Lower-Division Courses (13 to 15 units): International and Area Studies 1 and two international societies and cultures courses from Anthropology 3, Comparative Literature 1D (or 2WD or 4WD), Economics 1, 2, Ethnomusicology 5, M25, Geography 3, 4, 6, History 2B, 22, Political Science 50 (or 50R), Sociology 1, World Arts and Cultures 20, 33. Students may substitute one area studies preparation course (from Comparative Literature 1C, 2CW, 4CW, Dutch 10, English 88G, French 12, 14, 14W, 41, 60, German 50B, 59, 61A, History 1C, 1CH, 97C, International and Area Studies 40, Italian 42B, 46, 50B, Portuguese 40A, Romanian 90, Russian 25, 25W, 30, 31, 32, 90B, 90BW, Scandinavian 50, 50W, Slavic 90, or Spanish 42) toward the international societies and cultures preparation requirement.

Required Upper-Division Courses (20 to 25 units): Five area studies group 1 courses as follows:


The area studies electives listed above (group 1) focus on contemporary issues of that region after 1750. Students may substitute a maximum of one upper-division course with focus on earlier historical aspects of the region or on diasporas with origins related to the region toward the area studies additional elective category (item 3 above). The course may be selected from the following group 2 list:


Policies

One upper-division language course (advanced level) may be applied to item 3 above by petition to the chair of the program. A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Latin American Studies Minor

The Latin American Studies minor is designed for students who wish to augment their major with concerted study of the history, culture, and society of Latin America from an interdisciplinary and modern perspective.

Study Abroad

Latin American Studies minors are highly encouraged to study abroad. Students can travel to all areas through a variety of programs with various lengths (summer or during the academic year).

Students may partially fulfill the area studies elective requirement by participating in an International Institute Summer Travel Study program consisting of two courses in and on a particular region of the world. Contact the academic counselor for more information on available programs.

More information about study abroad programs is available through the UCLA International Education Office by e-mail, in person at 1332 Murphy Hall, or by phone at 310-825-4995.
The Minor

Required Lower-Division Courses (13 to 15 units): International and Area Studies 1 and two international societies and cultures courses from Anthropology 3, Comparative Literature 1D (or 2DW or 4DW), Economics 1, 2, Ethnomusicology 5, M25, Geography 3, 4, 6, History 2B, 22, Political Science 50 (or 50R), Sociology 1, World Arts and Cultures 20, 33. Students may substitute one area studies preparation course from Clusters 26A, History 8A, 8AH, 8B, 8C, 97E, International and Area Studies 50, Portuguese 40B, 46, or Spanish 44) toward the international societies and cultures preparation requirement.

Required Upper-Division Courses (20 to 25 units): Five area studies group 1 courses as follows: (1) two humanities and arts group 1 courses from Art History C142A, C142B, 144, Comparative Literature 177, English 135, Ethnomusicology M108A, 108B, 161K (must be taken twice to equal one 4-unit course), Film and Television 106C, Portuguese 130A, 130B, 141B, 142A, 142B, Spanish 120, World Arts and Cultures C139, (2) two social sciences group 1 courses from African American Studies M154C, M154D, M178, Anthropology 161, 162, Chicana/o and Central American Studies 111, 117, M125, M132, C141, 143, 151, 169, Community Health Sciences 132, Gender Studies 129, M144, M147C, Geography 135, 172A, 172C, History 159, 160A, 160B, 162A, 162B, 162C, Political Science 124C, 154A, 154B, Public Health M106, Sociology 186, 191J, and (3) one additional elective course selected from the group 1 lists above or from the group 2 list below.

The area studies electives listed above (group 1) focus on contemporary issues of that region after 1750. Students may substitute a maximum of one upper-division course with focus on earlier historical aspects of the region or on diasporas with origins related to the region toward the area studies additional elective category (item 3 above). The course may be selected from the following group 2 list: Anthropology 114P, 114Q, Art History CM139A, CM139B, CM141, Chicana/o and Central American Studies M105D, M105E, 109, M119, 142, M159B, 184, M187, Ethnomusicology M116, History 157A, 157B, or Portuguese 143A.

Policies

One upper-division language course (advanced level) may be applied to item 3 above by petition to the chair of the program.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

South Asian Studies Minor

The South Asian Studies minor is designed for students who wish to augment their major with concerted study of the history, culture, and society of South Asia from an interdisciplinary and modern perspective.

Study Abroad

South Asian Studies minors are highly encouraged to study abroad. Students can travel to all areas through a variety of programs with various lengths (summer or during the academic year).

Students may partially fulfill the area studies elective requirement by participating in an International Institute Summer Travel Study program consisting of two courses in and on a particular region of the world. Contact the academic counselor for more information on available programs.

More information about study abroad programs is available through the UCLA International Education Office by e-mail, in person at 1332 Murphy Hall, or by phone at 310-825-4995.

Admission

To enter the minor, students must be in good academic standing (overall grade-point average of 2.0 or better) and have completed all lower-division minor courses with a GPA of 2.0 or better in those courses.

The Minor

Required Lower-Division Courses (13 to 15 units): International and Area Studies 1 and two international societies and cultures courses from Anthropology 3, Comparative Literature 1D (or 2DW or 4DW), Economics 1, 2, Ethnomusicology 5, M25, Geography 3, 4, 6, History 2B, 22, Political Science 50 (or 50R), Sociology 1, World Arts and Cultures 20, 33. Students may substitute one area studies preparation course from Art History 31, History 9A, 97N, or South Asian M60) toward the international societies and cultures preparation requirement.

Required Upper-Division Courses (20 to 21 units): Five area studies group 1 courses as follows: (1) two humanities and arts group 1 courses from Art History C154C, 154D, Asian 151, 153, Comparative Literature C178, Ethnomusicology 146, 147, South Asian 150, 155, (2) two social sciences group 1 courses from Asian American Studies 172C, Gender Studies M164A, History 174B, 174C, 175A, 175C, and (3) one additional elective course selected from the group 1 list above or from the group 2 list below.

The area studies electives listed above (group 1) focus on contemporary issues of that region after 1750. Students may substitute a maximum of one upper-division course with focus on earlier historical aspects of the region or on diasporas with origins related to the region toward the area studies additional elective category (item 3 above). The course may be selected from the following group 2 list: Anthropology 116P, Art History 154A, 154B, Asian 164, Asian American Studies M172A, 172B, History 174A, South Asian CM160, or 185.

Policies

One upper-division language course (advanced level) may be applied to item 3 above by petition to the chair of the program.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Southeast Asian Studies Minor

The Southeast Asian Studies minor is designed for students who wish to augment their major with concerted study of the history, culture, and society of Southeast Asia—Brunei, Cambodia, East Timor, Indonesia, Laos, Malaysia, Myanmar (Burma), Philippines, Singapore, Thailand, and Vietnam—from an interdisciplinary and modern perspective.

Study Abroad

Southeast Asian Studies minors are highly encouraged to study abroad. Students can travel to all areas through a variety of programs with various lengths (summer or during the academic year).

Students may partially fulfill the area studies elective requirement by participating in an International Institute Summer Travel Study program consisting of two courses in and on a particular region of the world. Contact the academic counselor for more information on available programs.

More information about study abroad programs is available through the UCLA International Education Office by e-mail, in person at 1332 Murphy Hall, or by phone at 310-825-4995.

Admission

To enter the minor, students must be in good academic standing (overall grade-point average of 2.0 or better) and have completed all lower-division minor courses with a GPA of 2.0 or better in those courses.

The Minor

Required Lower-Division Courses (13 to 15 units): International and Area Studies 1 and two international societies and cultures courses from Anthropology 3, Comparative Literature 1D (or 2DW or 4DW), Economics 1, 2, Ethnomusicology 5, M25, Geography 3, 4, 6, History 2B, 22, Political Science 50 (or 50R), Sociology 1, World Arts and Cultures 20, 33. Students may substitute one area studies preparation course from Art History 31, History 9A, 97N, or South Asian M60) toward the international societies and cultures preparation requirement.

Required Upper-Division Courses (20 to 21 units): Five area studies group 1 courses as follows: (1) two humanities and arts group 1 courses from Art History C154C, 154D, Asian 151, 153, Comparative Literature C178, Ethnomusicology 146, 147, South Asian 150, 155, (2) two social sciences group 1 courses from Asian American Studies 172C, Gender Studies M164A, History 174B, 174C, 175A, 175C, and (3) one additional elective course selected from the group 1 list above or from the group 2 list below.

The area studies electives listed above (group 1) focus on contemporary issues of that region after 1750. Students may substitute a maximum of one upper-division course with focus on earlier historical aspects of the region or on diasporas with origins related to the region toward the area studies additional elective category (item 3 above). The course may be selected from the following group 2 list: Anthropology 116P, Art History 154A, 154B, Asian 164, Asian American Studies M172A, 172B, History 174A, South Asian CM160, or 185.
Policies

One upper-division language course (advanced level) may be applied to item 3 above by petition to the chair of the program.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

International and Area Studies

Lower-Division Courses

1. Introduction to International and Area Studies. (5) Lecture, three hours; discussion, one hour. Introduction to international and area studies from interdisciplinary framework, covering themes related to international politics and markets, as well as international societies and cultures, to illuminate and clarify profoundly international character of world we live in and to introduce set of contemporary issues and challenges that cross borders and affect every region of the world. P/NP or letter grading.

2. M6A-M6B-M6C. Elementary Amharic. (4-4-4) (Same as African American Studies M94-M98-M99.) Lecture, five hours. Course M6A is required, which is requisite to M6C. Introduction to Amharic, Semitic language that is official language of Ethiopia. Coverage of basic Amharic grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

3. M7A-M7B-M7C. Elementary Yoruba. (4-4-4) (Same as African American Studies M7A-M7B-M7C.) Lecture, five hours. Course M7A is requisite to M7B, which is requisite to M7C. Introduction to Yoruba, one of major languages of West Africa, which is spoken widely throughout Nigeria, Benin, and Togo. Coverage of basic Yoruba grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

4. Explorations in International Studies. (2) Lecture, two hours. Exploration of key international events through active learning, designed to develop understanding of international issues and diverse skill set, including persuasive speaking, critical thinking, research skills, problem solving, teamwork, expository writing, and leadership skills. May be repeated for credit without limitation. P/NP grading.

5. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

6. Introduction to Southeast Asia. (5) Lecture, three hours; discussion, one hour (when scheduled). Interdisciplinary survey designed as introduction to modern Southeast Asia. P/NP or letter grading.

7. Introduction to East Asia. (5) Lecture, three hours; discussion, one hour (when scheduled). Interdisciplinary survey designed as introduction to modern East Asia. P/NP or letter grading.

8. Introduction to Europe. (5) Lecture, three hours; discussion, one hour (when scheduled). Interdisciplinary survey designed as introduction to modern Europe. P/NP or letter grading.

9. Introduction to Latin America. (5) Lecture, three hours; discussion, one hour (when scheduled). Interdisciplinary survey designed as introduction to modern Latin America. P/NP or letter grading.

10. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities. May be repeated for credit with topic change. Letter grading.

11. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. In-depth study with lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

12. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP or letter grading.

13. Art of Citizen Diplomacy. (2) Seminar, two hours. Examination of theory, tools, and practice of civic engagement by highlighting student leadership. Provides practical tools in leadership, civic responsibility, and conflict resolution in order to tackle global issues such as changing gender equality, income equality, and human rights. Class activities to understand how ordinary citizens can build bridges between cultures. Letter grading.

14. Introduction to Experiential Learning Abroad. (2) Seminar, two hours. Intended for students planning to participate in international study abroad program during upcoming summer. Practical tools in effective listening, intercultural understanding, understanding multiple narratives, sharpening leadership skills, and articulating thoughts. Prepares students for study abroad experiences and offers them tools to appreciate their travel. Letter grading.

15. Engaging Global Cultures: Reflecting on Fieldwork. (2) Seminar, three hours. Academic venue for students who have attended study abroad programs to reflect on and share their experiences in order to enhance benefits of program in which they participated. Practical tools in active listening and applying knowledge acquired during international travel. Students analyze complex layers of intercultural communication, world affairs, and conflict. Post-study abroad follow-up activities, including presentations on campus and in community, other on-campus education activities, and writing journal article. Letter grading.

Graduate Course

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

INTERNATIONAL DEVELOPMENT STUDIES

Interdepartmental Program
College of Letters and Science

10274 Bunche Hall
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International Development Studies
310-825-5187
Program e-mail

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Daniel N. Posner, PhD (Political Science)
Shaina S. Potts, PhD (Geography)
Alden H. Young, PhD (African American Studies, Sociology)

Overview

Through an interdisciplinary lens, the International Development Studies major offers students the opportunity to study, analyze, and critically assess the social, political, and economic forces that, throughout history, have shaped inequality in the modern world. The central objective of the program is to engage students with debates around the widening patterns of disparities of wealth, power, privilege, and access to social justice that occur both within and between the countries of the global north and global south.

Undergraduate Major

International Development Studies BA

The curriculum introduces students to key theoretical debates around development and to detailed case studies of successful and failed interventions; and provides methodological training. Core and elective courses illuminate the extent to which realities that affect people often arise owing to economic class, gender, race, ethnicity, religion, migrant status, and other identities, and investigate the impact of policy solutions and forms of citizen engagement on communities and the environment. Students are trained to both think critically about these issues and explore ways to engage with development work at home and abroad through experiential learning, internships, immersive study abroad programs, independent faculty-guided research, and collaborative group projects.

Study Abroad

International Development Studies majors are highly encouraged to study abroad in developing areas of the world. Students can do so through a variety of programs with various lengths (summer or during the academic year). More information about study abroad programs is available through the UCLA International Education Office. Contact the office by e-mail, in person at 1332 Murphy Hall, or by phone at 310-825-4996.

Capstone Major

The International Development Studies major is a designated capstone major. Seniors must complete an advanced seminar that provides unique opportunity to work closely with a faculty member on a focused topic of research. Students completing the capstone should be able to demonstrate skills and expertise acquired in earlier coursework; identify, analyze, and select relevant data from primary and secondary sources; acquire a working knowledge of broader scholarly discourse; conceive and execute an original research paper; and engage with a community of scholars, presenting their work to peers as well as providing feedback on peers’ work. The seminar culminates in a written paper or project and a formal class report.

Learning Outcomes

The International Development Studies major has the following learning outcomes:

- Demonstrated specific skills and expertise, including original research, data analysis, clear and cogent writing, and general knowledge/critique of major issues in the field
- Identification, analysis, selection, and use of relevant data from primary and secondary sources
- Working knowledge and formation of an opinion about diverse perspectives and discourses
- Design of an original research project that identifies, engages, and addresses a focused problem
- Active engagement with a community of scholars by expressing viewpoints through robust and informed discourse

Entry to the Major

Admission

Admission to the International Development Studies major is by application only. To be eligible to apply, students must have first completed all nonlanguage preparation courses and the foreign language courses through at least level 10 (elementary level). Any remaining language courses may be completed after students have been accepted to the major.

Pre-major

Incoming first-year and transfer students may be admitted as International Development Studies pre-majors on acceptance to UCLA. Pre-major students must apply for major standing at the end of fall quarter of their junior year; they are not automatically accepted into the major.

Transfer Students

Transfer applicants to the International Development Studies pre-major with 90 or more units must complete the following introductory courses prior to admission to UCLA: two introductory macroeconomics, microeconomics, and/or economic geography courses; one statistics course; three courses, each from a separate category, selected from sociocultural anthropology, cultural or economic geography, cultural area studies, world history, comparative politics, and introductory sociology; and demonstrated proficiency equivalent to level 3 at UCLA in one modern foreign language. Transfer students must apply for the major by the end of fall quarter of their junior year.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Entry to the Major Policies

Each preparation for the major course must be taken for a letter grade, and students must have a UC grade-point average of 2.0 or better in those courses.

The application period is once per year, and students must apply no later than the end of fall quarter of their junior year.

Meeting the above minimums does not guarantee admission to the program. Admission is on a competitive basis, using the above qualifications as minimum standards for consideration.

Requirements

Preparation for the Major

Required: (1) International Development Studies 1; (2) one course from Economics 1, 2, Geography 4, Public Affairs 30, or 40; (3) one methods course from Economics 41, Education 35, History 96W, Political Science 6, 6R, Public Affairs 60, Sociology 20, Statistics 10, or 12; (4) three social sciences/area studies courses, each from a different category, selected from (a) Anthropology 3, (b) Gender Studies 10, (c) Geography 3, 5, 6, (d) Global Studies 1, International and Area Studies 1, 31, 33, 50, (e) History 8A, BB, 8C, 9A, 9D, 9E, 10B, 10BW, 11B, 12B, 12C, 22, (f) Political Science 20, 50, (g) Sociology 1, (h) Comparative Literature 4DW, Spanish 44; and (h) demonstrated proficiency in one modern foreign language equivalent to level 6 at UCLA.

The Major

Required: (1) Three core courses selected from International Development Studies 110, M120, 130, and 140; (2) capstone seminar course. International Development Studies 191; (3) one research methodology course from Anthropology 138P, Asian American Studies 103, C142A,
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99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

110. Culture, Power, and Development. (4) Lecture, three hours; discussion, one hour (when scheduled). Requisite: course 1. Broad introduction to theoretical traditions in development studies, with focus on dynamics of culture, power, markets, states and social movements, with selected case studies in developing nations and comparative case analysis across Global South and North. Letter grading.

M120. Political Economy of Development. (4) (Same as Political Science M167C.) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 1. Political economy approach to puzzle of why some countries are rich and others are poor and why, among latter, some have been able to achieve rapid rates of economic growth while others have not. Explanation and logic behind most important arguments that have been advanced to account for differences across countries in rates and levels of economic development. Letter grading.

130. Theory and History in International Development. (4) Lecture, three hours; discussion, one hour (when scheduled). Requisite: course 1. Social scientific survey of debates and theories contributing to economic development and underdevelopment. Topics include measurement and statistics, social and industrial policies, inequality, poverty, and historical differences for development paths across Europe, Asia, Africa, and Latin America. Letter grading.

140. Decolonizing Political Economy: Colonialism and Development. (4) Lecture, three hours; discussion, one hour (when scheduled). Requisite: course 1. Introduction to approaches and intellectual traditions of critical development studies. Violence of colonization and struggle for decolonization were two of definining processes of 20th century. Consideration of how developments of global and North-South divide. Linking of political and economic systems to challenge of mitigating, rather than adapting—or not addressing—extraordinary challenges of international relations. Letter grading.

M152. Political Economy of Food Change. (4) (Same as Political Science M152.) Lecture, three hours; discussion, one hour (when scheduled). Requisite: course 1. Exploration of superfoods, which are nutrient rich foods considered beneficial for well-being, health, and longevity, as they are high in minerals, vitamins, and antioxidants. While superfoods have been part of cultures’ diets for centuries, in recent decades they have been researched in scientific and medical communities. Citizens globally have begun to increasingly demand and consume foods that are nutritious, organic, and sustainable. It is

International Development Studies

Lower-Division Courses

1. Introduction to International Development Studies. (5) Lecture, three hours; discussion, one hour. Exploration of how understandings of development—cultural, political, and economic realms of development—diffuse differences for development. Lecture and discussion about topics in greater depth. Letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. May be repeated for credit with topic change. P/NP grading.

89H. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. May be repeated for credit with topic change. P/NP grading.


Honors Program

In addition to completing all courses required for the major, students must take courses 198A, 198B, and 198C, in which they research, write, and present an honors thesis.

Policies

Preparation for the Major

Each course must be taken for a letter grade.

The Major

Each course must be taken for a letter grade. Students must earn a grade of C or better in an International Development Studies 110, M120, 130, and 140; no more than one of these three courses may be repeated. All three core courses must be taken prior to the capstone senior seminar 191 course.

Honors Program

 Majors who have completed International Development Studies 110, M120, and 130 and who have a 3.5 grade-point average in all courses offered for the major are eligible to formally apply for the honors program.

To receive honors at graduation, students must have at least a 3.5 GPA in courses applied toward the major (including 198A, 198B, 198C) and an overall GPA of 3.0.

Highest honors are awarded to students who complete the major (including courses 198A, 198B, 198C) with a 3.75 GPA and who produce an exceptional thesis.

International Development Studies


East Asia and Pacific Islands, Sub-Saharan Africa and one disciplinary elective listed below:


Eastern Europe and West Central Asia: Anthropology 163Q, Central and East European Studies 125, C126, Gender Studies M127, History 107C, 120B, 120D, 127B, 127C, Political Science 128B, 156A, Russian 120, 121, 122, M127, 131.


Honors Programs

Majors who have completed International Development Studies 110, M120, and 130 and who have a 3.5 grade-point average in all courses offered for the major are eligible to formally apply for the honors program.

To receive honors at graduation, students must have at least a 3.5 GPA in courses applied toward the major (including 198A, 198B, 198C) and an overall GPA of 3.0.

Highest honors are awarded to students who complete the major (including courses 198A, 198B, 198C) with a 3.75 GPA and who produce an exceptional thesis.

Upper-Division Courses

110. Culture, Power, and Development. (4) Lecture, three hours; discussion, one hour (when scheduled). Requisite: course 1. Broad introduction to theoretical traditions in development studies, with focus on dynamics of culture, power, markets, states and social movements, with selected case studies in developing nations and comparative case analysis across Global South and North. Letter grading.

M120. Political Economy of Development. (4) (Same as Political Science M167C.) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 1. Political economy approach to puzzle of why some countries are rich and others are poor and why, among latter, some have been able to achieve rapid rates of economic growth while others have not. Explanation and logic behind most important arguments that have been advanced to account for differences across countries in rates and levels of economic development. Letter grading.

130. Theory and History in International Development. (4) Lecture, three hours; discussion, one hour (when scheduled). Requisite: course 1. Social scientific survey of debates and theories contributing to economic development and underdevelopment. Topics include measurement and statistics, social and industrial policies, inequality, poverty, and historical differences for development paths across Europe, Asia, Africa, and Latin America. Letter grading.

140. Decolonizing Political Economy: Colonialism and Development. (4) Lecture, three hours; discussion, one hour (when scheduled). Requisite: course 1. Introduction to approaches and intellectual traditions of critical development studies. Violence of colonization and struggle for decolonization were two of defining processes of 20th century. Consideration of how developments of global and North-South divide. Linking of political and economic systems to challenge of mitigating, rather than adapting—or not addressing—extraordinary challenges of international relations. Letter grading.

M152. Political Economy of Food Change. (4) (Same as Political Science M152.) Lecture, three hours; discussion, one hour (when scheduled). Requisite: course 1. Exploration of how governments at international, national, and regional levels are addressing—or not addressing—extraordinary challenges of international relations. Letter grading.

M157. Superfoods: Cultural and Global Perspectives. (4) (Same as Food Studies M177 and Global Studies M177) Seminar, four hours. Exploration of superfoods, which are nutrient rich foods considered beneficial for well-being, health, and longevity, as they are high in minerals, vitamins, and antioxidants. While superfoods have been part of cultures’ diets for centuries, in recent decades they have been researched in scientific and medical communities. Citizens globally have begun to increasingly demand and consume foods that are nutritious, organic, and sustainable. It is
important also to address issues such as marketing, misinformation, and hyper about superfoods. Surge of interest in superfoods is increasingly important in content of ongoing research with regards to food access and production. Study addresses paradox that communities cope simultaneously with malnutrition/hunger and obesity, and how farming practices for superfoods and staple crops are related. P/NP or letter grading. 188. Special Courses in International Development Studies. (4) Seminar, three hours. Program-sponsored experimental or temporary courses on selected contemporary topics in international development taught by visiting instructors or affiliated faculty members. May be repeated for credit with topic change. P/NP or letter grading. 189HC. Honors Contracts. (1) Tutorial, three hours. Limited to 20 students. Designed as adjunct to undergraduate course lecture. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading. 189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate course lecture. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

Graduate Course

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

International Migration Studies

Interdisciplinary Minor

College of Letters and Science

10389B Bunche Hall
Box 951487
Los Angeles, CA 90095-1487

International Migration Studies

Roger Waldinger, PhD, Chair

Faculty Committee

Leisy J. Abrego, PhD (Chicana/o and Central American Studies)
Victor Agadjanian, PhD (Sociology)
Rubén Hernández-León, PhD (Sociology)
Hiroshi Motomura, JD (Law)
Marjorie E. Faulstich Orellana, PhD (Education)
H. Glenn Penny, PhD (History)
Roger Waldinger, PhD (Sociology)
J. Christopher Zepeda-Millán, PhD (Chicana/o and Central American Studies, Public Policy, Sociology)

Overview

International migration is a global phenomenon comprising broad and deep linkages within and between the developed and developing worlds. As the issues surrounding global migration processes cross manifold intellectual boundaries, understanding demands insights and methods from a broad array of disciplines. Standard models in economics or demography offer powerful explanations of why people migrate and how migration might have an effect on wages and employment in both sending and receiving societies. However, migration is ultimately about the lived experience of people—those moving and those they encounter. Understanding migrants’ emergent identities and the problems of belonging and acceptance that migration generates requires attention, both to the micro level, as well as to the specific historical and cultural contexts surrounding both migration flows and societal responses.

Undergraduate Minor

International Migration Studies Minor

The minor in International Migration Studies orients students toward comparative, historical, and international dimensions, providing structured exposure to the relevant scholarship. It aims to build an appreciation of international migration and its dilemmas as it draws on the insights generated from a broad array of disciplines and methodological approaches needed for grappling with a vast social and intellectual phenomenon.

Admission

Admission to the International Migration Studies minor is by application and is competitive, using courses, grades, grade-point averages, and personal statements as minimum standards for consideration. To better ensure that they can be successful in their research, students must also secure a faculty member who serves as their thesis adviser, generally to be chosen from the list of affiliated faculty. Applicants must be in good academic standing with an overall grade-point average of 2.0 or better and demonstrate a genuine interest in the subject matter. Applicants are not automatically accepted into the minor and only a limited number of students are admitted each year. Applications must be submitted no later than spring quarter of the junior year.

The Minor

Required Upper-Division Courses (28 to 32 units): (1) one core course: Sociology 151 or 152; (2) four elective courses, from at least two departments, selected from Asian American Studies M130C, M166A, 167, Chicana/o and Central American Studies 120, M124, M126, 164XP, C179, Economics 103, 151, English 134, German 175, History 145A, M146B, 146C, Political Science 143C, M181B, Psychology 129C, 133G, Slavic CM114, Sociology 116, 154, 156, Urban Planning 141; (3) two courses, International Migration Studies 155 and 199, to include an advanced theory course, and a thesis tutorial culminating in a thesis.

Students who take both core courses may apply the second course toward the elective requirement.

This minor culminates in a thesis.

Policies

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade of C– or better. Successful completion of the minor is indicated on the transcript and diploma.
International Migration Studies

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses


190. Colloquia and Speaker Series. (2) Seminar, two hours. Introduction to current scholarship in field of international migration studies. Attendance at selected presentations with required response papers. May be repeated for credit. P/NP grading.


Career Prospects

Graduates with a bachelor’s degree in Labor Studies are prepared for careers in nonprofit advocacy, public service, and labor and social movements broadly defined. With ample opportunities to develop and apply a variety of research modalities through coursework, students are also prepared to succeed in graduate and professional school programs in a wide variety of fields.

Undergraduate Study

Labor Studies is interdisciplinary by its nature, drawing on a variety of fields for instructors and researchers. Labor Studies majors and minors become part of an existing interdisciplinary research community with strong ties to researchers and teachers in the social sciences and professional schools.

Requirements

Preparation for the Major

Required: Labor Studies 10 and two lower-division courses selected from African American Studies 1, M5, Asian American Studies 10, 20, 40, 50, Chicana/o and Central American Studies 10B, Gender Studies 10, Geography 4, History 2B, 8B, 12A, 12B, 12C, Honors Collegium 82, Political Science 60, Public Policy 10A, 10B, Sociology M5, 51, Spanish 44, or Labor Studies M1A, M1B, M1CW.

The Major

Required Core Course (4 units): Labor Studies 101.

Capstone Research and/or Community-Engaged/Internship Experience (8 units): During their senior year, students must complete research-intensive capstone courses, community-engaged/internship experiences, or a combination of both, selected from Labor Studies 191A, 194A, 194B, 195A, 195B, 199, or an approved internship through the Center for Community Learning.

Policies

Preparation for the Major

Students may petition, prior to enrollment in the course, to apply other topical courses with substantial labor-related content.

The Major

Students may petition, prior to enrollment in the course, to apply other topical upper-division courses with substantial labor-related content.

Each major course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better.

Undergraduate Minor

Labor Studies Minor

The Labor Studies minor augments study in a traditional field. Students are required to complete both a departmental major and this minor. The faculty adviser certifies completion of the program.

Admission

To enter the minor, students must be in good academic standing, have a 2.5 grade-point average or better, have completed 45 units, and files a petition and meet with the faculty adviser and minor coordinator in 9244 Bunche Hall, 310-206-0812. Students are encouraged to meet early with the academic adviser to declare the minor and design a coherent program of coursework.

The Minor

Required Core Course (4 units): Labor Studies 101.


Policies

Students may petition, prior to enrollment in the course, to apply other topical courses with substantial labor-related studies content.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have a minimum grade of C (2.0) in each and an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Labor Studies

Lower-Division Courses

M1A-M1B-M1CW. Work, Labor, and Social Justice in U.S. (6-6-6) (Formerly numbered Labor and Work-Place Studies M1A-M1B-M1CW) (Same as Clusters M24A-M24B-M24CW.) Course M1A is enforced required to M1B, which is enforced required to M1CW. Limited to first-year freshman. Letter grading. M1A-M1B. Lecture, three hours; discussion, two hours. Exploration of ways in which work has been transformed over last century, impact of this transformation on people, and role of labor movement as force for social justice. M1CW. Special Topics. Seminar, three hours. Enrollment limited to course M1B. Topics include labor law/history, gender, race, and workplace. Satisfies Writing II requirement.

10. Introduction to Labor and Workplace Studies. (8) (Formerly numbered Labor and Workplace Studies 10.) Lecture, three hours. Exploration of workplace social assumptions about work, including why some work is favored, whether those with good jobs really are better people than those without, and how this understanding of work and value came to be common sense. Unpacking of these and other assumptions about work, value, and power, with focus on low-wage workers, their communities, and their place in contemporary society. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

98. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division course lecture. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

98HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Des- signed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental read- ings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

97. Introduction to Labor Studies Research. (4) Seminar, three hours. Designed for freshmen/sopho- mores. Study of current topics and particular research methods in labor studies through readings and other assignments at introductory level. Consult Schedule of Classes for specific topics to be offered for next regularly scheduled offering. May be repeated for credit with topic change. P/NP or letter grading.

99. Student Research Program. (1 to 2) Tutorial (su- pervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-divi- sion students under guidance of faculty mentor. Stu- dents must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

101. Introduction to Labor and Social Movements in Los Angeles. (4) (Formerly numbered Labor and Workplace Studies 101.) Lecture, three hours; discussions, one hour. Students gain an understanding of social justice, social movements, and labor and labor issues in context of global city of Los Angeles. In-depth examination of experience of workers and role of labor movement in Los Angeles, both histori- cally and currently. Topics include changing organiza- tion of work in U.S. and reconfiguration of employ- ment relationships; response of labor movement, histori- cally and in present, to managerial initiatives; way in which organized labor has handled issues of class, race, ethnicity, gender, and immigration status; and challenges facing workers in 21st century and their in- ternational responses in Los Angeles. P/NP or letter grading.

M105. American Working Class Movements. (4) (Same as History M146B.) Lecture, three hours; dis- cussion, one hour (when scheduled). Designed for ju- niors/seniors. Major episodic events of trade union, and cultural history of American working class from Colonial times to present, with emphasis on both or- ganized and unorganized labor, history of Knights of Labor, AFL-CIO, and development of labor politics. P/NP or letter grading.

M108. Common Thread: Garment Workers Past, Present, Future. (4) (Same as Chicana/o and Central American Studies M128C and Gender Studies M169.) Lecture, three hours. Study blends frameworks from economics, labor history, and ethnic studies to offer in-depth exploration of lives and experiences of gar- ment industry workers from early 19th century to present. In contrast to traditional narratives, studies locates garment workers—majority of whom are immi- grant women—at vanguard of U.S. labor movement, showing how they pioneered new forms of worker ed- ucation and other social welfare programs, and be- came leaders in fight for women’s, civil, and immigrant rights. Exploration of garment work relationship to American culture, tracing how sweatshop became symbol of worker exploitation, how popular culture and fashion trends impacted lived realities of workers in those shops, and how racial and gendered expecta- tions shaped and transformed garment workers. By doing so, study reveals garment work to be central thread that ties together histories of global trade, in- dustrialization, gender and sexuality, immigration, radicalism, unionization, and American imperialism. P/NP or letter grading.

M114C. African American Political Thought. (4) (For- merly numbered Labor and Workplace Studies M114C.) (Same as African American Studies M114C and Political Science M180A.) Lecture, three or four hours; discussion, one hour (when scheduled). Inten- sive introduction to African American political thought, with focus on major ideological trends and political philosophies as they have been applied and inter- preted by African Americans. Debates and conflicts in black political thought, historical contest of African American social movements, and relationship be- tween black political thought and major trends in Western thought. P/NP or letter grading.
M115. We Gone Be Alright: Developing Next Generation of Black Organizers. (4) (Same as African American Studies M115.) Seminar, four hours. Learning from and building on Black labor and community organizing traditions, students develop skills and mindsets needed for transformative leadership. Students connect with leaders of community organizations, student organizers, and prepare for more intensive community-based work. P/NP or letter grading.

M116. Asian American Social Movements. (4) (Formerly numbered Labor and Workplace Studies M116.) (Same as Asian American Studies M116.) Lecture, three hours. Designed for juniors/seniors. Examination of several dimensions of Asian American social movements, including grassroots, mass movement, and student organizers, and prepare for more intensive community-based work. P/NP or letter grading.

M117. Negotiation. (4) (Formerly numbered Labor and Workplace Studies M117.) (Same as Communica-
tion M117.) Lecture, four hours. Art and science of negotiation in securing agreements between independent parties. Theory and practice that underlies success- ful negotiation. Students learn broad array of negotiation skills, including identifying one’s own (and others’) communication style, identifying and incorporating components of successful negotiation. Experiential course in which students participate linked struggle for change with own personal and mindsets needed for transformative leadership.

M118. Learning from and building on Black labor and community organizing traditions, students learn broad array of negotiation skills, including identifying one’s own (and others’) communication style, identifying and incorporating components of successful negotiation. Experiential course in which students participate linked struggle for change with own personal experience, and to improve working conditions for them and various strategies for social change and economic equity pursued through organized labor and other means. Letter grading.

M129. Community-Engaged Research Methods. (4) (Same as Chicana/o and Central American Studies M129 and Public Affairs M117C.) Lecture, four hours. Students are trained in designing, drafting, piloting, and administering new survey focused on transitions to adulthood. Written with labor and community partners serving Latinx, Asian Americans and Pacific Islanders, Black, and Indigenous youth and low-wage workers, this survey gathers data on work in diverse fields and labor, education, health, mental health, and civic engagement of young people residing in Black, Indigenous, and people of color communities. Students are exposed to historical dynamics of race and economic inequality in contemporary life, and critical quantitative science. Includes testing questions on racial identity and attitudes, gender identity, workforce development, labor rights, healing and well-being, and social justice issues. P/NP or letter grading.

M134XP. Engaging Immigrants and Their Families. (5) (Formerly numbered M134SL.) (Same as Chicana/o and Central American Studies M134.) Lab Seminar, four hours; discussion, two hours; field placement, two hours. Survey and exploration of immigrant languages in Los Angeles and role that cultural competence plays in acting in part to buffer, settle, and incorporate immigrants in daily life. Focus on civil society to explore multiple forms of interventions and impacts that take place in multiple communities across Los Angeles’ basin. Service learning partnerships focus on organizations addressing immigration concerns. Letter grading.

M136. Working Families and Educational Inequalities in Urban Schools. (4) (Formerly numbered Labor and Workplace Studies M136.) (Same as Education M136.) Seminar, three hours; fieldwork, five hours. Exploration of complex relationship between working-class and immigrant communities in American urban schools. Drawing on multiple disciplinary frameworks that address issues of race, ethnicity, and immigration, schools viewed as sites where inequalities are produced and resisted. Review of history of exclusionary treatment and divergent conceptual frames that educational researchers have used to understand notion of inequality, access to quality public education, and how race, ethnicity, and class affect school experiences for working-class and poor communities. Look inside schools through community service learning opportunity to examine systems, structures, and policies that sustain and reproduce inequality and policies that intend to remedy educational inequalities in urban schools. Opportunity to investigate issues of working-class families and in- educationally they relate to communities and experiences. P/NP or letter grading.

M140. Working It: Women, Work, and Family. (4) (Formerly numbered Labor and Workplace Studies 140.) Lecture, three hours; discussion, one hour. Examination of working women in U.S. history from 19th-century midwives to 21st-century sex workers through film, oral history, and traditional forms of scholarship. Exploration of personal and work life of women from various intersections of class, gender, race, ethnicity, sexuality, and immigration status with focus on systems that have shaped workplace experiences for women over time, including gender discrimin- ations, sexual harassment, sexualization, and reproductive health. Special attention given to strategies women have utilized to shape their work ex- perience, and to improve working conditions for them and their working-class sisters. P/NP or letter grading.

M143. Class and Gender in Care Work. (4) (Same as Asian American Studies M162, Chicana/o and Central American Studies M128B, and Gender Studies M140C) Lecture, three hours; discussion, one hour. Examination of how gender, race, class, and citizenship status shape domestic labor in U.S. Examination of domestic worker experiences through film, fiction, and traditional scholarship. Investigation of why do-
mestic workers, and why immigrants and women of color make up large percentage of this workforce. Exploration of how domestic workers navigate pay and working conditions, and how they build community and family networks in shadows of their privileged employers. P/NP or letter grading.

M144. Women’s Movement in Latin America. (4) (Formerly numbered Labor and Workplace Studies M144.) Lecture, four hours. Course on women’s movements and feminism in Latin America and Caribbean to examine diverse social movements. Emphasis on historical context and political conditions that led to women’s resistance, as well as social movements and policies that women have launched political and gender struggles. Discussion of forms of feminism and women’s consciousness that have emerged out of indigenous rights movements, environmental struggles, labor movements, Christian-based communities, peasant and rural organizing, and new social movements that are concerned with race, sexuality, feminism, and human rights. Consideration of class as intersectional category of race, sexuality, feminism, and class discussions, and readings. Introduction to elements of effective storytelling. Analysis and investigation of stories in contemporary American life. Students practice telling stories in collaborative, workshop-style environment. P/NP or letter grading.

M165. Sociology of Race and Labor. (4) (Formerly numbered Labor and Workplace Studies M165.) (Same as African American Studies M165 and Sociology M165.) Lecture, one hour. Limited to juniors/seniors. Exploration of relationships between race/ethnicity, employment, and U.S. labor movement. Analysis of underlying racial and gendered inequalities historically and currently. Consideration of circumstances under which workers and unions have excluded people of color from jobs and unions, as well as circumstances under which women and men in organized labor have used color into unions in efforts to improve their wages and working conditions. Impact of globalization on these dynamics. P/NP or letter grading.

M166A. Immigration, Labor, and Higher Education. (4) (Formerly numbered Labor and Workplace Studies M166A.) (Same as Asian American Studies M166A and Chicana/o and Central American Studies M166A.) Lecture, one hour. New immigrant rights movement, with focus on historical context and political conditions that led to rights of migrants at center of current political and social justice struggles in U.S. P/NP or letter grading.

M166B. Research on Immigration Rights, Labor, and Higher Education. (4) (Formerly numbered Labor and Workplace Studies M166B.) (Same as Asian American Studies M166B and Chicana/o and Central American Studies M165B.) Seminar, two hours. Required course: course M166A. Expansion of research conducted by students in course M166A involving oral histories, research on immigration/labor/higher education, and evaluation of legislation and legal issues impacting undocumented students. Letter grading.

M166C. Research on Immigrant Students and Higher Education. (4) (Formerly numbered Labor and Workplace Studies M166C.) (Same as Asian American Studies M166C and Chicana/o and Central American Studies M166C.) Seminar, three hours. Enrollment of theoretical and practical understanding of worker center movement, with focus on historical factors that have led to emergence and growth of worker centers. Role of worker centers in promoting multi-racial, multi-cultural, and multi-cultural economic justice. Transnational cross-border solidarity issues and rights of undocumented workers. P/NP or letter grading.

M170. History and Politics of Immigration: Migrants and Inevitable Evolution of Collective and Individual Rights. (4) (Formerly numbered Labor and Workplace Studies M170.) Lecture, three hours. With immigration as rights of migrants at center of current political and legal debates throughout world, study offers critical introduction to inevitable evolution of law and policy resulting from—and in reaction to—movement of immigrants and refugees. Study also asks how labor activists and organizers might harness power of storytelling in service of social justice, and equitable and diverse society. Introduction to elements of effective storytelling. Analysis and investigation of stories in contemporary American life. Students practice telling stories in collaborative, workshop-style environment. P/NP or letter grading.

M171. Labor and Economic Development. (4) (Formerly numbered Labor and Workplace Studies M171.) (Same as Community Health Sciences CM171.) Lecture, three hours; fieldwork, two hours. Examination of economic development and identification of ways that labor and labor unions directly and indirectly influence shape economic development. Wide range of roles that labor plays, and could play, in promoting and supporting economic development for all. Letter grading.

M173. Nonviolence and Social Movements. (4) (Formerly numbered Labor and Workplace Studies M173.) (Same as African American Studies M173 and Chicana/o and Central American Studies M173.) Lecture, three hours; discussion, one hour. Overview of nonviolent and its impact on social movements both historically and in present day. Use of nonviolent tools with which to engage current political debates about immigration. Using historical and modern texts, while incorporating elements of art, popular culture, and storytelling, study encourages discussion, debate, and analysis about immigrants’ role in development of rights and modern political debates about immigration. Exploration of themes of inclusion, exclusion, integration, and multiculturalism. Students describe shortcomings of status-quo policies while also imaging and prescribing arguments about where law can and should go. P/NP or letter grading.

M174. Labor and Employment Law. (4) (Formerly numbered Labor and Workplace Studies M174.) Lecture, three hours. Use of combination of cases, statutes, news articles, films, and oral history, introduction to history of organized labor; current debates and trends; and basic structure of laws, regulations, and cases that govern organizing to improve workplace conditions. Study covers primary federal acts and court cases that govern strikes, picketing, boycotts, and union elections. Examination of challenges to organizing labor from inside and outside labor movement, including right-to-work legislation; dismantling of public sector unions; and racism, sexism, and anti-immigrant sentiment in labor movement. Students present cases, including labor law case studies. Topics include new trends in labor organizing. Offers mix of guest speakers, oral history, case excerpts, scholarly articles, news articles and blogs, videos, small-group work, and community engagement. P/NP or letter grading.

M175. Agitational Communication. (4) (Formerly numbered Labor and Workplace Studies M175.) (Same as Communication M175.) Lecture, four hours; discrete; one hour (when scheduled). Theory of
tation; agitation as force for change in existing institutions and policies in democratic society. Intensive study of selected agitational movements and techniques and content of their communications. Letter grading.

M176. Visual Communication and Social Advocacy. (4) (Formerly numbered Labor and Workplace Studies M176). (Same as Communication M176.) Lecture, four hours. Exploration of role of spirituality and social justice in visual communication as a medium of grassroots politics that have organized immigrant rights movements. Focus on teachings of St. Francis of Assisi, Mahatma Gandhi, Martin Luther King, Thich Nhat Hanh, and other spiritual leaders. Uses specific case studies and workshop experiences. Includes videos and guest lectures by scholars and activists who integrate their spirituality into their daily work. P/NP or letter grading.

179A. Neoliberalism, Social Justice, and Community Organizing. (4) (Formerly numbered Labor and Workplace Studies 179A.) Lecture, three hours. Study of intersection of neoliberalism, democracy, and rise of social justice movements in U.S. Theory of depth, theoretically rigorous, and empirically-based understanding of dynamics that have produced specific form of crisis that envelopes contemporary politics. Focus on understanding and explaining development and current structures of neoliberalism as both ideological frame and form of governance. Examination of some of main works on democratic theory and their relevance to social justice to demonstrate how specific patterns of development of neoliberalism in U.S. since 1980 has undermined democratic governance and produced conditions that have deepened inequality and poverty and/or booty. Examination of emergence of grassroots politics that have organized around issues that challenge or contest neoliberal dominance and attempt to reassert principles of democratic inclusion through their struggles for social change. P/NP or letter grading.

179B. Doing Democracy: Social Movements, Grassroots Politics, and Community Organizing. (4) (Formerly numbered Labor and Workplace Studies 179B.) Lecture, three hours. Focus on community organizing and social movements as mechanisms that have been adopted by marginalized or excluded sectors and groups of society to promote their interests and express their desires. Emphasis on fundamental characteristics of effective and responsive democratic regime. Summarization of critiques that describe means by which those elements are being undermined in current period and the efforts to promote social justice as basis for inclusive and responsive form of popular sovereignty through politics of social movements and community organizing. Study of various forms of social movements and different models of and approaches to community organizing and their relationship to democratic governance. P/NP or letter grading.

M180. Southern California Regional Economy. (4) (Formerly numbered Labor and Workplace Studies M180.) (Same as Urban Planning CM137.) Lecture, three hours. Introduction to regional economy, with emphasis on understanding and analyzing labor market composition, and review of conflicting portrayals depicting dynamics of region. Two all-day bus tours of key economic regions and guest lectures by regional experts included. Letter grading.

181. Local and Global Social Science Research Principles, Methods, and Practices. (4) (Formerly numbered Labor and Workplace Studies 181.) Lecture, three hours. Introduction to basic social science research methods. Through comparison of lectures, key readings, and participation in hands-on research project, students develop understanding of critical debates regarding role of research in socioeconomic context that impacts workers and their organizations and communities at large. Introduction to several research method techniques that are highly effective in producing sound and rigorous studies about and for labor movement, including important data that can be used for political action. Special emphasis given to understanding research that has supported different labor movements. P/NP or letter grading.

182. Oral History for Social Change. (4) (Formerly numbered Labor and Workplace Studies 180.) Three hours. Introduction to field of oral history and its role in social movements. Students receive hands-on experience through independent fieldwork where they design, execute, and process oral history research project on contemporary topics such as immigration, work, housing, incarceration, and social movements. Through reading and discussion students learn oral history research techniques, such as interviewing and working with human subjects. Emphasis on innovative uses of oral history interviews that bring silenced voices to wide public audience for social justice. No knowledge or experience about interviewing and processing required. P/NP or letter grading.

183. Special Courses in Labor and Workplace Studies. (4) (Formerly numbered Labor and Workplace Studies 187.) Lecture, three hours; discussion, one hour. Program-sponsored experimental or temporary courses, such as those taught by visiting faculty members. May be repeated for credit. P/NP or letter grading.

184. Special Courses in Labor and Workplace Studies. (4) (Formerly numbered Labor and Workplace Studies 188.) Seminar, four hours. Program-sponsored experimental or temporary courses, such as those taught by visiting faculty members. May be repeated for credit. P/NP or letter grading.

185A. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus under faculty mentor's instruction. May not be repeated. Letter grading.


185C. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced corequisite: course 185B. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to finalize course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

186. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to upper-division lecture course. In-depth study of specific topics. Conduct preparatory research, and begin preparation of syllabus under faculty mentor while facilitating USIE 88S course. Individual study in regularly scheduled meetings with faculty mentor. May be repeated for credit. P/NP or letter grading.

187. Special Courses in Labor and Workplace Studies. (4) (Formerly numbered Labor and Workplace Studies 187.) Lecture, three hours; discussion, one hour. Program-sponsored experimental or temporary courses, such as those taught by visiting faculty members. May be repeated for credit. P/NP or letter grading.

188A. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus under faculty mentor's instruction. May not be repeated. Letter grading.


188C. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced corequisite: course 188B. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to finalize course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to upper-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be repeated for credit. P/NP or letter grading.

189C. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as an upper-division research seminar. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 credits. Letter grades required. Honors content noted on transcript. P/NP or letter grading.

190. Research Group Seminars: Labor Summer Research Program. (1) Seminar, three hours. Open to students who are part of Labor Summer Research Program. Seminar covers research methods used by union researchers and scholars engaged in labor relations and workplace studies. Through combination of lectures, key readings, and active participation in hands-on research fieldwork, development of understanding of critical doing research with community residents and organizations, our responsibilities when conducting research in historically disenfranchised communities, and relationship between socially-just research outcomes and methodologies. P/NP or letter grading.

M190A. Community-Engaged Research in Practice: Community Scholars. (4) (Same as Community Engagement and Social Change M190B.) Seminar, three hours. Enforced corequisite: course 194A. Designed for students participating in Astin Community Scholars Program. Students learn from faculty, community stakeholders, graduate students, and key academic experts about emerging organizing models, best practices, and changing landscape in chosen topic. Provides students with opportunity to work with leaders from key community and labor organizations across six-month dynamic participatory research project. Focus on current topic affecting Angelenos and neighboring communities. Key outcomes may include production of policy reports, popular education events, and/or book publication by UCLA Labor Center and collaborative partners. Primary focus on engaging policy makers and other change agents. P/NP or letter grading.

M190C. Community-Engaged Research in Practice: Community Scholars. (4) (Same as Community Engagement and Social Change M190C.) Seminar, three hours. Requisites: courses M190A, M190B. Enrollment limited to students participating in Astin Community Scholars Program. Students learn from faculty, community stakeholders, graduate students, and key academic experts about emerging organizing models, best practices, and changing landscape in chosen topic. Provides students with opportunity to work with leaders from key community and labor organizations across Los Angeles as research lens. P/NP or letter grading.

191. Research Group Seminars: Labor Summer Research Program. (1) Seminar, three hours; fieldwork, five hours. Enforced corequisite: course 191A. Second part of Labor Studies capstone senior research project series with focus on fundaments of social science research methods. Through lectures, key readings, and in-class exercises, students develop understanding of critical debates regarding role of research within socioeconomic and political contexts that impact organizations, and communities at large. Overview of various research methods and techniques, literature review, data collection, analysis, and final paper. Focus on workers, labor, and community organizing, policy initiatives, and/or political action in Los Angeles as research lens. P/NP or letter grading.

191A. Labor Studies: Research Principles, Methods, and Practices. (4) (Formerly numbered 191.) Seminar, three hours. Focus on labor studies capstone senior research project series with focus on research methods in action. Through lectures, key readings, in-class exercises, and field work, students develop understanding of critical debates regarding role of research within socioeconomic and political contexts that impact organizations, and communities at large. Overview of various research methods and techniques, literature review, data collection, analysis, and final paper. Focus on workers, labor, and community organizing, policy initiatives, and/or political action in Los Angeles as research lens. P/NP or letter grading.

191B. Labor Studies: Research in Action. (4) Seminar, three hours; fieldwork, five hours. Requisite: course 191A. Second part of Labor Studies capstone senior research project series with focus on research methods in action. Through lectures, key readings, in-class exercises, and field work, students develop understanding of critical debates regarding role of research within socioeconomic and political contexts that impact organizations, and communities at large. Overview of various research methods and techniques, literature review, data collection, analysis, and final paper. Focus on workers, labor, and community organizing, policy initiatives, and/or political action in Los Angeles as research lens. P/NP or letter grading.
debates regarding role of research and socioeconomic contexts that impact low-wage workers and their families. May be repeated for credit. Offered in summer only, P/NP or letter grading.

194B. Research Group Seminars: Labor and Workplace Studies. (Formerly numbered Labor and Workplace Studies 194B.) Seminar, three hours. Designed for undergraduate students who are part of research group. Discussion of research methods and current literature in field of labor studies or of research of faculty members and/or students. May be repeated for credit. P/NP or letter grading.

194C. Field Research Group Seminar. (4) Seminar, one hour; fieldwork, 15 hours. Designed for undergraduate students who are part of Labor Summer Research program. Offers opportunity for immersion in applied research in field of labor studies. Field research and analysis contributing to research project. Students learn how to conduct surveys, analyze data, and contribute their analysis to research brief. Students develop understanding of critical debates regarding role of research and socioeconomic contexts that impact low-wage workers and their families. May be repeated for credit. Offered in summer only. P/NP or letter grading.

195A. Community or Corporate Internships in Labor and Workplace Studies. (4) (Formerly numbered Labor and Workplace Studies 195A.) Tutorial, one hour; fieldwork, 15 hours. Enforced corequisite: course 194A. Limited to juniors/seniors. Internship in supervised setting in community agency, labor union, or other organization concerned with work and employment issues. Placements to be arranged by instructor. Students meet on regular basis with instructor and provide periodic written reports on their experience. May be repeated for credit. Individual contract with supervising faculty member required. Offered in summer only. P/NP or letter grading.

195B. Community or Corporate Internships in Labor and Workplace Studies. (2 to 5) (Formerly numbered Labor and Workplace Studies 195B.) Tutorial, to be arranged; internship, up to 15 hours. Limited to juniors/seniors. Internship in supervised setting in community agency, labor union, or other organization concerned with work and employment issues. Placements to be arranged by instructor. Students meet on regular basis with instructor and provide periodic written reports on their experience. May be repeated for credit. Individual contract with supervising faculty member required. P/NP or letter grading.

195CE. Worker and Community Organizing for Social Change: Research Justice Internship. (4) Tutorial, to be arranged; fieldwork, eight to 10 hours. Students work intensively with community organization on structured activity that supports organization’s mission and student’s intellectual development. Students meet regularly with graduate student instructor to reflect on internship experience, assigned readings, and reflective writing assignments. Students complete final paper that links research and experience. May be repeated for credit with consent of Center for Community Engagement. No more than 8 units may be applied toward major; units applied must be taken for letter grade. Letter grading.

199. Directed Research in Labor and Workplace Studies. (2 to 4) (Formerly numbered Labor and Workplace Studies 199.) Tutorial, one hour. Limited to juniors/seniors. Supervised individual research under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Course

375. Teaching Apprentice Practicum. (1 to 4) (Formerly numbered Labor and Workplace Studies 375.) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

LATIN AMERICAN STUDIES

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Bonnie Taub, PhD, Co-Chair

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Robin L.H. Derby, PhD (History)
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Susanna B. Hecht, PhD (Environment and Sustainability, Geography, Urban Planning)
Rubén Hernández-León, PhD (Sociology)
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William R. Summerhill, PhD (History)
Bonnie Taub, PhD (Anthropology, Community Health Sciences)
Kevin B. Terraciano, PhD (History)
Maarten H. Van Delden, PhD (Spanish and Portuguese)

Overview
For more than 60 years, UCLA has been a leader among U.S. universities in teaching and research on Latin America. The Master of Arts (MA) program in Latin American Studies offers graduate students the unique opportunity to pursue interdisciplinary research. Students design their own programs by choosing courses from various fields of study that focus on Latin America. Students can work with leaders in various disciplines that study Latin America, with guest lecturers from various fields. (Latin American Studies core course.)

250B. Interdisciplinary Seminar: Latin American Studies. (4) Seminar, three hours. Problem-oriented seminar on critical areas stressed in University’s cooperative programs in Latin America.

250C. Interdisciplinary Topics in Latin American Studies. (4) Reading knowledge of Spanish or Portuguese normally required. Seminar devoted to selected topics of an interdisciplinary nature.


Undergraduate Study

Information on the undergraduate program in this discipline, which offers a major and a minor in Latin American Studies, can be found in the International and Area Studies section.

Graduate Majors

Latin American Studies MA

Students are able to complete the degree in one to two years, and can choose to write a final thesis or submit three revised seminar papers in partial satisfaction of the degree.

Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Articulated Degree Programs

Articulated degree programs permit no credit overlap; students must complete degree requirements separately for each degree.

• Latin American Studies MA/Master of Education
• Latin American Studies MA/Master of Library and Information Science
• Latin American Studies MA/Master of Public Health

Concurrent Degree Programs

Concurrent degree programs allow students to reduce the number of courses required for two degrees, since some courses may apply to both degrees.

• Latin American Studies MA/Master of Business Administration
• Latin American Studies MA/Master of Urban and Regional Planning

Latin American Studies Graduate Courses

205. Latin Americanist Scholarship. (4) Lecture, three hours. Panoramic introduction to methods and issues in various disciplines that study Latin America, with guest lecturers from various fields. (Latin American Studies core course.)

250B. Interdisciplinary Seminar: Latin American Studies. (4) Seminar, three hours. Problem-oriented seminar on critical areas stressed in University’s cooperative programs in Latin America.

250C. Interdisciplinary Topics in Latin American Studies. (4) Reading knowledge of Spanish or Portuguese normally required. Seminar devoted to selected topics of an interdisciplinary nature.

M268, HIV/AIDS and Culture in Latin America. (4) (Same as Community Health Sciences M250.) Seminar, three hours. Exploration of cultural, political, and public health context for people living with and at risk for HIV/AIDS and their families in Latin America. Public health aspects, including epidemiology, comorbidity concerns and community interventions, medical anthropological study of experience of those impacted, and grassroots responses, as well as political/economic context addressing poverty and structural violence. Letter grading.

M264, Latin America: Traditional Medicine, Shamanism, and Folk Illness. (4) (Same as Anthropology M233Q and Community Health Sciences M264.) Lecture, three hours. Recommended preparation: Community Health Sciences 132; bilingual English/Spanish skills. Examination of role of traditional medicine and shamanism in Latin America and exploration of how indigenous and mestizo groups diagnose and treat folk illness and Western-defined diseases with variety of health-seeking methods. Examination of art, music, and ritual and case examples of religion and healing practices via lecture, film, and audiotape. Letter grading.

M268A-M268B. Seminars: Recent Latin American History. (4) (Same as History M268A-M268B) Seminar, three hours. Course M268A is requisite to M268B. Reading knowledge of Spanish and Portuguese normally required. Seminar devoted to selected topics of interdisciplinary nature. In Progress (M268A) and letter (M268B) grading.

291A-291B. Variable Topics in Latin American Studies. (4-4) Seminar, three hours. Selected topics on Latin America. May be repeated for credit with topic change. S/U or letter grading.

501. Cooperative Program. (2 to 8) Preparation: consent of UCLA graduate adviser and graduate dean, and host campus instructor, department chair, and graduate dean. Used to record enrollment of UCLA students in courses taken under cooperative arrangements with USC. S/U grading.

596. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. May be repeated, but only 4 units may be applied toward minimum graduate course requirement. S/U or letter grading.

597. Preparation for MA Comprehensive Examination. (4) Tutorial, to be arranged. Ordinarily taken only during term in which student is being examined. S/U grading.

598. Research for and Preparation of MA Thesis. (4) Tutorial, to be arranged. Only 4 units may be applied toward minimum graduate course requirement. S/U grading.

Faculty Roster

Professors

Khaled M. Abou El Fadl, JD, MA, PhD (Omar and Azmardala Alfi Endowed Professor of Islamic Law)
E. Tendayi Achiume, JD (Alicia Miriana Professor of Law)
Iman Anabtawi, JD, MA

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Professors Emeriti

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Kal Raatia, JD, PhD (Promise Institute Professor of Comparative and International Law)
Katherine W.V. Stone, JD (Arjay and Frances Fearing Miller Professor Emerita of Law)
Samuel C. Thompson, JD, MA, LLM

Law

School of Law

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Law

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Admissions e-mail

Russell Korobkin, JD, Interim Dean
in interdisciplinary research and training, and is at the forefront of efforts to link research to its effects on society and the legal profession. Students do not undertake a specific major but have the opportunity to enroll in a wide variety of courses dealing with various legal fields.

The law school is unique in that it also offers students an opportunity to specialize in six specific areas of law: business law and policy; critical race studies; international and comparative law; law and philosophy; media, entertainment, and technology law and policy; and public interest law and policy.

Graduate Study

The school offers a three-year curriculum leading to the Juris Doctor (JD) degree and three advanced degrees—Master of Laws (LLM), Master of Legal Studies (MLS), and Doctor of Juridical Science (SJD).

Courses

The undergraduate courses offered by the School of Law are designed for undergraduate students only. For information about the legal curriculum of the School of Law, see the school website.

Graduate Majors

Doctor of Juridical Science

Information about the Juridical Science program, how to apply, and requirements is available on the school website.

Juris Doctor

Information about the Juris Doctor program, how to apply, and requirements is available on the school website.

Concurrent Degree Programs

Concurrent degree programs allow students to reduce the number of courses required for two degrees, since some courses may apply to both degrees.

- Juris Doctor/African American Studies MA
- Juris Doctor/Asian Pacific Islander Studies MA
- Juris Doctor/Doctor of Education
- Juris Doctor/Education MA, PhD
- Juris Doctor/Master of Business Administration
- Juris Doctor/Master of Social Welfare
- Juris Doctor/Master of Urban and Regional Planning
- Juris Doctor/Philosophy PhD

Master of Laws

Information about the Master of Laws program, how to apply, and requirements is available on the school website.

Master of Legal Studies

Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Articulated Degree Programs

Articulated degree programs permit no credit overlap; students must complete degree requirements separately for each degree.

- Master of Legal Studies/Doctor of Medicine
Alien Land Laws aimed at Japanese residents of California, relocation of Japanese citizens after Pearl Harbor, California’s response to U.S. immigrants from dust bowl during great depression, post-World War II through 1960s measured aimed at equal access to things like home ownership, employment, and rental housing, and uses of initiative in modern era. P/NP or letter grading.

173. Topics in American Constitutional History. (4) Lecture, three hours. Introduction to major themes, events, and cases in American constitutional history. U.S. Supreme Court decisions and other sources of constitutional meaning, including popular movements and expressions of constitutional principle from actors in other branches of federal government and in states. Emphasis on historical background and ideological context for particular constitutional controversies at various points in American history, with more formal analysis of particular decisions and competing methods of constitutional interpretation considered. Topics include origins of judicial review, debates over meaning of federalism in early republic, slavery and constitution, Reconstruction Amendments, laissez-faire constitutionalism, citizenship and empire, origins of civil liberties, New Deal constitutionalism, and pre-history of Brown versus Board of Education. P/NP or letter grading.

175. Seminar: Individual Rights Protected by U.S. Constitution. (3) Seminar, two hours. Limited to juniors/seniors. Breadth introduction to and examination of individual rights protected under Bill of Rights and 14th Amendment to U.S. Constitution, including freedom of speech and press, religious freedom, right to privacy (including procreative rights) and due process of law, constitutional protection against discrimination based on race and gender, and basic criminal procedure protections. Emphasis on principal Supreme Court cases establishing scope of those rights and their limits. Letter grading.

176. Special Topics in Law. (4) Lecture, four hours. Topics of special interest to undergraduate students. Specific topics may vary each term depending on particular interest of instructors or students. May be repeated for credit. P/NP or letter grading.

182. Law and Popular Culture. (4) Lecture, four hours. Focus on interface between two important subjects—law and popular culture. Students view series of films or television shows related to law, lawyers, and legal system. Discussion of pop culture treatment of subjects such as adversary system, good and bad lawyers, female lawyers, lawyers from lesbian, gay, bisexual, and transgender community, minority lawyers, work life of lawyers, legal education, ethical issues, jury system, and criminal and civil justice, drawing on film theory and filmmaking technique to deepen understanding of interrelationship between law and popular culture. Illumination of ways in which pop culture products both reflect and change social views about law and lawyers. Offered in summer only. P/NP or letter grading.

183. Corporate Mock Trial. (4) Lecture, four hours. Introduction to basic principles of business law, such as how law applies to various business entities, duties and liabilities of corporate officers and directors, and shareholder derivative suits. American legal system and how litigation progresses from filing of complaints through trial. Students participate in mock trial at end of course. P/NP or letter grading.

186. Law and Order. (4) Lecture, four hours. Introduction to basic principles of criminal law. How to read and interpret judicial cases and provisions of penal code to learn how American criminal justice system works. Discussions structured to simulate experience of typical law school classroom. P/NP or letter grading.

187A. Legal History Colloquium. (3) Seminar, two hours. Corequisite: course 193. Reading of scholarly papers prepared by school faculty members and other scholars in fields of legal history, economics, and political science. Preparation of critiques and discussion of major research paper presented in seminar setting with author of paper. P/NP or letter grading.

187B. Politics and International Law Colloquium. (3) Seminar, two hours. Corequisite: course 193. Limited to College Honors students. Lectures on alternative theoretical approaches (including realism, institutionalism, and constructivism) to understand relationship between politics and international law. Weekly presentations on topic by 10 leading law and political science scholars from the U.S. and abroad. Reading of scholarly papers, preparation of critiques, and discussion of issues in seminar setting with authors of papers. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

191. Variable Topics Research Seminars: Law—California Legal History. (4) Seminar, two hours. Prerequisite: course 170. Research project, selected in consultation with faculty member and using original and secondary materials, to be conducted, followed by major presentation of student work to class and writing of major research paper. Letter grading.

193. Journal Club Seminars: Law. (1) Seminar, one hour; discussion, two hours. Corequisite: course 187A. Adjunct course limited to undergraduate students taking law colloquium. Intensive review and follow-up of scholarly papers presented in colloquium series. Reading of legal cases and supplemental material to provide legal framework for each scholarly paper presented in colloquium. Supervised by faculty member in charge of colloquium series. May be repeated for credit. P/NP grading.

199. Directed Research in Law. (1 to 6) Tutorial, three hours per week per unit. Limited to juniors/seniors. Supervised individual research under guidance of faculty mentor. Culminating scholarly paper required. May be repeated for credit. Individual contract required. P/NP or letter grading.

LESBIAN, GAY, BISEXUAL, TRANSGENDER, AND QUEER STUDIES

Interdisciplinary Minor
College of Letters and Science
350 Kaplan Hall
Box 957233
Los Angeles, CA 90095-7233

Lesbian, Gay, Bisexual, Transgender, and Queer Studies
310-825-7650

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Ju Hui Judy Han, PhD (Gender Studies)
Elia H. Haselswerdt, PhD (Classics)
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Alma Lópex Gazapa de Alba, PhD (Chicana/o and Central American Studies)
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H'o-esta Mo’e’nahne, PhD (English)
Sherene H. Razack, PhD (Gender Studies)
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Gary M. Segura, PhD (Chicana/o and Central American Studies, Political Science, Public Policy)
Justin J. Torres, MFA (English)

Overview

Although the initial focus in lesbian, gay, bisexual, transgender, and queer (LGBTQ) studies is usually on minority sexualities and transregendism, it is impossible to study them in any meaningful way without raising questions about gender, race, ethnicity, economics/class, globalization, and the construction of scientific knowledge. Thus lesbian, gay, bisexual, transgender, and queer studies, which may at first seem to concern the private practices of a small number of people, inevitably leads to the much larger study of sexuality and culture. The Lesbian, Gay, Bisexual, Transgender, and Queer Studies program represents an important vantage point from which to investigate the social construction of sexual identity, social control of behavior, changing definitions of the family, and the place of sexual and gender expression in the public and private spheres. Because of the
kinds of questions asked, LGBTQ studies is the site of some of the most exciting work being done today on the relationship between sexuality and culture.

Undergraduate Minor

Lesbian, Gay, Bisexual, Transgender, and Queer Studies Minor

The minor in Lesbian, Gay, Bisexual, Transgender, and Queer Studies offers students the opportunity to study sexuality from a variety of cultural and disciplinary perspectives meant to engage students in some of the most cutting-edge research in the field. In addition, seniors in the minor are expected to do a capstone internship in an international, national, or community organization, thereby acquiring invaluable firsthand knowledge, experience, and data. After completing the minor, students should be familiar with the theoretical tools that different disciplines employ to study sexuality. They should be acquainted with some of the many different ways sexuality has been organized in the past and is organized in different cultures in the present and should have an enhanced understanding and appreciation both of the sexual diversity of the world in which they live and of the complex ways in which sexuality intersects with other categories of identity and practice.

Admission

To enter the Lesbian, Gay, Bisexual, Transgender, and Queer Studies minor, students must have an overall grade-point average of 2.0 or better.

The Minor

Required Upper-Division Courses (28 units):
- Lesbian, Gay, Bisexual, Transgender, and Queer Studies M114, 180XP, and five additional Required Upper-Division Courses (28 units):
- Lesbian, Gay, Bisexual, Transgender, and Queer Studies

Lower-Division Courses

19. Flat Lux Freshman Seminars. (1 Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.
89. Honors Seminars. (1 Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.
89HC. Honors Contracts. (1 Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.
99. Student Research Program. (1 to 2 Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

M101A. Premodern Queer Literatures and Cultures. (Same as English M101A and Gender Studies M105A.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3. Survey of discrete period of queer literature from beginning to circa 1850. Works by such writers as Sappho, Plato, Marlowe, Shakespeare, and Thomas Gray may be included. May be repeated for credit with topic or instructor change. P/NP or letter grading.
M101B. Queer Literatures and Cultures, 1850 to 1970. (Same as English M101B and Gender Studies M105B.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3. Survey of discrete period of queer literature and culture from circa 1850 to 1970. Works by such authors as Walt Whitman, Radclyffe Hall, Gertrude Stein, Virginia Woolf, Langston Hughes, Tennessee Williams, Henry Blake Fuller, and James Baldwin may be included. May be repeated for credit with topic or instructor change. P/NP or letter grading.
M101C. Queer Literatures and Cultures after 1970. (Same as English M101C and Gender Studies M105C.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3. Examination of cultural production of queer literatures and culture from 1970 to the present. May be repeated for credit with topic or instructor change. P/NP or letter grading.

Policies

Students may petition to apply one non-listed course to the minor if they can show that lesbian, gay, bisexual, transgender, or queer issues represent a significant part (at least 25 percent) of the course content. Students are strongly urged to keep in close contact with the student services adviser, who can help them plan their course of study.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Lesbian, Gay, Bisexual, Transgender, and Queer Studies

Lower-Division Courses

19. Flat Lux Freshman Seminars. (1 Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.
89. Honors Seminars. (1 Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.
89HC. Honors Contracts. (1 Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.
99. Student Research Program. (1 to 2 Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

M101A. Premodern Queer Literatures and Cultures. (Same as English M101A and Gender Studies M105A.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3. Survey of discrete period of queer literature from beginning to circa 1850. Works by such writers as Sappho, Plato, Marlowe, Shakespeare, and Thomas Gray may be included. May be repeated for credit with topic or instructor change. P/NP or letter grading.
M101B. Queer Literatures and Cultures, 1850 to 1970. (Same as English M101B and Gender Studies M105B.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3. Survey of discrete period of queer literature and culture from circa 1850 to 1970. Works by such authors as Walt Whitman, Radclyffe Hall, Gertrude Stein, Virginia Woolf, Langston Hughes, Tennessee Williams, Henry Blake Fuller, and James Baldwin may be included. May be repeated for credit with topic or instructor change. P/NP or letter grading.
M101C. Queer Literatures and Cultures after 1970. (Same as English M101C and Gender Studies M105C.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3. Examination of cultural production of queer literatures and culture from 1970 to the present. May be repeated for credit with topic or instructor change. P/NP or letter grading.

Policies

Students may petition to apply one non-listed course to the minor if they can show that lesbian, gay, bisexual, transgender, or queer issues represent a significant part (at least 25 percent) of the course content. Students are strongly urged to keep in close contact with the student services adviser, who can help them plan their course of study.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.
132. Border Consciousness. (4) (Same as Chicana/o and Central American Studies M132.) Lecture, three hours; discussion, one hour (when scheduled). Investigation of cultural and mass media of bilingual and bicultural identities produced by geographical and cultural space between Mexico and U.S. Special attention to border consciousness as site of conflict and resistance. Letter grading.

133. Chicana/Latina Literature. (4) (Same as Chicana/o and Central American Studies M133 and Gender Studies M133.) Lecture, four hours. Exploration of intersection of radical First and Third World feminism, Chicana/Latina identity and continuity to Chicana identity, representation of lesbianism in Chicana literature, meaning of *familia* in Chicana lesbian lives, and impact of Chicana lesbian theory on Chicana literature. Letter grading.

135. Bilingual Writing Workshop. (4) (Same as Chicana/o and Central American Studies CM135 and Gender Studies M135C.) Seminar, four hours. Limited to juniors/seniors. Writing sample required; access to course web page mandatory; need not be bilingual to enroll. Technical instruction, analysis, and theoretical discussion of bilingual creative expression through genre of short fiction. Bilingualism as both politics and aesthetic achievement. Discussion and analysis of Chicana/Latina short story collections. Peer critique of weekly writing assignments. Emphasis on narrative techniques such as character construction, setting, point of view, and dialogue, and magical realism as prevailing Chicana/Latina style. Some attention to process and product of instructor. P/NP or letter grading.

136. Censored! Art on Trial. (4) (Same as Chicana/o and Central American Studies M136.) Lecture, four hours. Examination of censorship in visual arts, particularly of queer Chicana/Chicano and Latina/Latino artists such as Alma Lopez, Ester Hernández, and Alex Donis. Other censored artists include feminist artist Yolanda López, queer artists Robert Mapleton, and Sarahnitte Lepard, painter Christ Off. Photographers Sally Mann and Andres Serrano, printmaker Enrique Chagoya, muralist Non Olubisi, writer Daniel Shale, and four performance artists—Karen Finley, Tim Miller, John Fleck, and Holly Hughes—whose work was vetted by chair of National Endowment for Arts (NEA) in 1990 after they had successfully passed through NEA’s peer review process and who came to be known as NEA Four. P/NP or letter grading.

137. Lesbian, Gay, Bisexual, Transgender, and Queer Perspectives in Pop Music. (5) (Same as Musicology M137.) Lecture, four hours; discussion, one hour. Study of queer Chicana/Latina and Latina/Latino music 20th century, with focus on lesbians, gay men, and members of other sexual minorities as creators, performers, and audience members. Letter grading.

141. African American Women’s History. (4) (Same as African American Studies M141.) Lecture, four hours. Historical examination of black women’s experiences in U.S. from antebellum era to present. By situating black women’s experiences within major historical transitions in American history, exploration of key themes, including gender formation, sexuality, labor and class, collective action, gender and sexual violence, reproduction, and role of law. How have intersecting oppressions impacted black women’s experiences in historical lives? How is difference constructed through interrelated and overlapping ideologies of race and gender? How do historically uncover black women’s historical experiences? What are challenges to such discoveries? Examination of black women’s individual and collective struggles for freedom from racism, sexism, and heteropatriarchy, as well as black women’s role in political movements, including suffrage, women’s liberation, civil rights, and black power. Investigation of black women’s role in contemporary society, including their cultural productions. Letter grading.

142. Race, Gender, and Punishment. (4) (Same as African American Studies M142.) Seminar, four hours. Interdisciplinary examination of historical and contempor ary development of modern prison industrial complex in U.S., with attention to impact of prison indus trial complex on immigrants, including undocumented residents, homeless populations, women, African Americans, and transgender nonconforming and lesbian, gay, bisexual, and transgender communities. Why does U.S. have some of highest population in world? What historical conditions and ideologies gave rise to this massive explosion in U.S. prisoner population? What policies have fueled mass imprisonment? Who is imprisoned? How do imprisoned bodies contribute to and become resistance to economic transformations and perceived social disorders? How is current crisis analogous to or distinct from regimes of racialized punishment in historical moments? Letter grading.

147A. Psychology of Lesbian Experience. (4) (Same as Gender Studies M147A and Psychology M147A.) Lecture, two hours; discussion, one hour. Literature review of research on psychology and psychology studies to examine various aspects of lesbian experiences, impact of heterosexism/stigma, gender role socialization, minority status of women and lesbians, identity development within a multicultural society, changes in psychological theories about lesbians in sociocultural context. P/NP or letter grading.

165SSL. Queer Activism and Engagement. (4) Lecture, three hours; fieldwork, five hours. Benefits students pursuing minor in Lesbian, Gay, Bisexual, Transgender, and Queer (LGBTQ) Studies, those passionate about social justice; fundamental skills about community engagement. Offers opportunity to work in LGBTQ-related community organizations, to reflect on political and theoretical issues involved in such work, and such organizations, and to develop skills about community engagement. May be repeated for credit with consent of instructor. P/NP or letter grading.

167. Contested Sexualities. (4) (Same as Gender Studies M167.) Lecture, three hours; discussion, one hour. Sociological perspectives on formation, control, and resistance of lesbian, gay, bisexual, and transgender identities. Women’s and men’s reproduction, identity, difference, and community; age, class, gender, and racial identity; and analysis of contemporary issues affecting contested sexualities. Letter grading.


189P. Lesbian, Gay, Bisexual, and Transgender Institutions and Organizations. (4) Formerly numbered 189PSL. Lecture, three hours; fieldwork, five hours. Preparation: one prior lesbian, gay, bisexual, and transgender studies course. Service-learning course that offers opportunity for students to work in Lesbian, gay, bisexual, and transgender-related community organizations, to reflect on political and theoretical issues involved in such work and such organizations, and to draw ideas from various courses they have already taken and test them in settings outside UCLA. P/NP or letter grading.

191D. Topics in Queer Literatures and Cultures. (5) (Same as English M191D and Gender Studies M191D.) Seminar, three or four hours. Enforced requisite: English Composition 3. Consult Schedule of Classes for author, period, genre, or subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

191E. Topics in Gender and Sexuality. (5) (Same as English M191E and Gender Studies M191E.) Seminar, three or four hours. Enforced requisite: English Composition 3. Consult Schedule of Classes for author, period, genre, or subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.


**LETTERS AND SCIENCE COLLEGEWIDE PROGRAMS**

**College of Letters and Science**

A311 Murphy Hall
Box 951414
Los Angeles, CA 90095-1414

Honors Programs 310-825-1553

**Overview**

Highly motivated students who find that no single major accommodates their specific interest in a given subject may propose designing their own major. Proposals are prepared with faculty guidance and sponsorship and are thoroughly examined for cogency, completeness, and academic merit.

**Undergraduate Majors**

**Individual Field of Concentration BA in Letters and Science**

Highly motivated students who find that no single major accommodates their specific interest in a given subject may propose designing their own major. Proposals are prepared with faculty guidance and sponsorship and are thoroughly examined for cogency, completeness, and academic merit.

**Learning Outcomes**

The Individual Field of Concentration major has the following learning outcomes:

- Design of a course of study that shows a deep understanding of how the disparate disciplines are connected
- Demonstrated understanding of how the research and creative methodologies of different disciplines can interface with and illuminate the understanding of another
- Demonstrated ability to read in the scholarly discourse and style of different disciplines
- Development of a voice in written thesis for an interdisciplinary audience
- Written thesis that demonstrates mastery of diverse fields as a result of research sources and production of scholarly work outside of traditionally defined academic boundaries

**LIFE SCIENCES**

College of Letters and Science

2305 Life Sciences Building
Box 957246
Los Angeles, CA 90095-7246

Life Sciences 310-825-6614

Department e-mail

Beth A. Lazazzera, PhD, Director

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Yvonne Y. Chen, PhD (Microbiology, Immunology, and Molecular Genetics)
Daniel H. Cohn, PhD (Molecular, Cell, and Developmental Biology)
Ronald H. Cooper, PhD (Integrative Biology and Physiology)
Joseph Esdin, PhD (Integrative Biology and Physiology)
Alan Garfinkel, PhD (Integrative Biology and Physiology, Medicine)
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Rachel E. Prunier, PhD (Ecology and Evolutionary Biology)

Morgan W. Tingley, PhD (Ecology and Evolutionary Biology)

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**Professors**

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Daniel H. Cohn, PhD
Frank A. Laski, PhD
Megan M. McEvoy, PhD

**Professor Emeritus**

Alan Garfinkel, PhD

**Associate Professors**

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Morgan W. Tingley, PhD

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Sharmila Venugopal, PhD

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Jukka P.M. Keranen, PhD
Rana R. Khanf, PhD
Gaston M.U. Pfluegl, PhD
John P. Phelan, PhD
Debra B. Pires, PhD
Shanna Shaked, PhD
Yevgenya Shevtsov, PhD

**Overview**

Students who wish to study life sciences have a choice of eight majors, all of which lead to a Bachelor of Science (BS) degree: Biology; Ecology, Behavior, and Evolution; and Marine Biology (Ecology and Evolutionary Biology Department); Microbiology, Immunology, and Molecular Genetics (Microbiology, Immunology, and Molecular Genetics Department); Molecular, Cell, and Developmental Biology (Molecular, Cell, and Developmental Biology Department); Neuroscience (Neuroscience Interdepartmental Program); Physiological Science (Integrative Biology and Physiology Department); and Psychobiology (Psychology Department). This choice reflects the diversity of undergraduate instruction in life sciences at UCLA. Despite this diversity, all of these majors require a common core of introductory courses that forms the foundation for any study of life sciences and that is required for more advanced courses in each major. The common core includes courses in chemistry, physics, and mathematics, as well as introductory courses in evolution.
and biodiversity, cellular and organismal biology, molecular biology, and genetics. During the first two years, students may also gain experience in a research laboratory through the **Student Research Program**. For more information on each major, see the individual departments in this chapter. For additional information on the Life Sciences core curriculum, see the **curriculum website**.

Students considering one of the life sciences majors are encouraged to declare a major as early as possible, even in their first year. In this way, they are identified by the life sciences advising offices and receive important curricular and other information. Because the core curriculum prepares them for any of the eight majors, they have the flexibility to switch to another life sciences major at any time during their progression through the core curriculum. Note: The Marine Biology and Psychobiology majors may require some courses in addition to the life sciences core curriculum as part of the preparation. Consult the course requirements for both majors.

**Undergraduate Study**

**Life Sciences Core Curriculum**

**Required:** Chemistry and Biochemistry 14A, 14B, 14BL, 14C, and 14D, or 20A, 20B, 20L, 30A, 30AL, and 30B; Life Sciences 7A, 7B, 7C, 23L, 107; Life Sciences 30A, 30B, and 40 or Statistics 13, or Mathematics 3A, 3B, and 3C, or 31A, 31B, and 32A; Physics 1A, 1B, 1C, 4AL, and 4BL, or 5A, 5B, and 5C.

Each core curriculum course must be passed with a grade of C− or better, and all courses must be completed with an overall grade-point average of 2.0 or better. Students receiving a grade of D or F in two core curriculum courses, either in separate courses or repetitions of the same course, are subject to dismissal from the major.

**Transfer Students**

Transfer applicants with 90 or more units must complete the following introductory courses for majors, preferably in separate courses or repetitions of the same course, are subject to dismissal from the major.

**Life Sciences**

**Lower-Division Courses**

**3H. Introduction to Molecular Biology (Honors).** (5) Lecture, two and one half hours; discussion, 90 minutes; movie section, two and one half hours. **Enforced requisites:** course 2, and Chemistry 14C or 30A. Honors course parallel to course 3, but at a more advanced level. Letter grading.

**4A. Collaborative Learning Workshop.** (1) Lecture, two hours. **Enforced corequisite:** course 4. **Development of problem-solving skills and intuition in genetics in collaborative learning context.** P/NP grading.

**7A. Cell and Molecular Biology.** (5) Lecture, three hours; discussion, 75 minutes. **Introduction to basic principles of cell structure and cell biology, biochemistry, and molecular biology.** P/NP or letter grading.

**7B. Genetics, Evolution, and Ecology.** (5) Lecture, three hours; laboratory, 80 minutes. **Enforced requisite:** course 7A. **Principles of Mendelian inheritance and population genetics.** Introduction to principles and mechanisms of evolution by natural selection, population, behavioral, and evolutionary ecology, and molecular and biodiversity, including major taxa and their evolutionary, ecological, and physiological relationships. Letter grading.

**7C. Physiology and Human Biology.** (5) Lecture, three hours; discussion, 75 minutes. **Enforced requisite:** course 7B. **Organization of cells into tissues and organs and principles of physiology of organ systems.** Introduction to human genetics and genomics. Letter grading.

**15. Life: Concepts and Issues.** (5) Lecture, two and one half hours; discussion, 75 minutes. **Introduction to important concepts and issues in the field for non-life sciences majors.** Topics include chemistry of life, genetics, physiology, evolution, and ecology—all explored in lecture and debates, with writing component. P/NP or letter grading.

**15L. Life: Concepts and Issues Laboratory.** (2) Laboratory, two hours. **Enforced requisite or corequisite:** course 15. **Broad introduction to biology, with focus on scientific literacy and thinking.** Topics include scientific thinking and decision making to interpret and analyze data, evolution and genetics, physics (chemistry, nutrition, reproduction, endocrinology, and neurobiology), and human behavioral biology. Letter grading.

**19. Flat Lux Freshman Seminars.** (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

**20. Quantitative Concepts for Life Sciences.** (5) **Lecture, three hours; discussion, two hours. Preparation:** three years of high school mathematics (to algebra II), some basic familiarity with computers. **Introduction to variety of quantitative concepts that are relevant to biology.** Designed to enhance quantitative skills that are essential for success in life sciences, chemistry, mathematics, and physics courses that make up core curriculum for life sciences majors at UCLA. Biological examples used throughout to gain appreciation of relevance of mathematics to biology. Letter grading.

**23L. Introduction to Laboratory and Scientific Methodology.** (3) Lecture, one hour; laboratory, three hours. **Requisite:** course 2 or 7B. **Recommended to be taken concurrently with Introduction to Laboratory life sciences laboratory designed for undergraduate students.** Opportunity to conduct wet-laboratory and cutting-edge bioinformatics laboratory experiments. Students work in groups of three, conduct experiments in areas of physiology, metabolism, cell biology, molecular biology, genotyping, and bioinformatics. Letter grading.

**30A. Mathematics for Life Scientists.** (5) Lecture, three hours; laboratory, two hours. **Preparation:** three years of high school mathematics (to algebra II), some basic familiarity with computers. **Mathematical modeling as tool for understanding dynamics of biological systems.** Fundamental concepts of single-variable calculus and development of single- and multi-variable differential equation models of dynamical processes in ecology, physiology, and other subjects in which quantities change with time. Use of free computer program Sage for problem solving, plotting, and dynamical simulation in laboratory. Letter grading.

**30B. Mathematics for Life Scientists.** (5) Lecture, three hours; laboratory, two hours. **Enforced requisite:** course 30A. **Introduction to concept of matrices and linear transformations to equip students with some basic tools to understand dynamics of multivariable nonlinear systems.** Examples from ecological, physiological, chemical, and other systems. Letter grading.
M32. Essential Calculus for Mathematical Biologists. (4) (Same as Computational and Systems Biology M32 and Mathematics M32T) Lecture, three hours; discussion, one hour. Limits, differentiation (single and several variables), introduction to optimization, integration and methods of integration, Taylor polynomials and applications to approximation, Taylor and Maclaurin series, vector valued functions, limits, derivatives, gradients, and Lagrange multipliers. P/NP or letter grading.

40. Statistics for Biological Systems. (5) Lecture, three hours; laboratory, two hours. Requisite: course 39A. Designed for life sciences students. Introduction to statistics with emphasis on computer simulation of chance probabilities as replacement for traditional formula-based approach. Simulations allow for deeper understanding of statistical concepts, and are applicable to wider class of distributions and estimators. Students learn simple programming language to carry out statistical simulations, and apply them to classic problems in biological and physical sciences. Letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities. May be repeated for credit. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for credit. P/NP or letter grading.

97. Variable Topics in Life Sciences. (1 to 4) Seminar, two to four hours. Current issues in research and/or development in life sciences. Consult Schedule of Classes for topics and instructors. May be repeated once for credit with consent of instructor. P/NP or letter grading.

98XA. PEERS Collaborative Learning Workshops for Life Sciences Majors. (1) Seminar, three hours. Corequisite: associated undergraduate lecture course in life sciences. lint Program for Excellence in Education and Research in Science (PEERS) students. Development of intuition and problem-solving skills in collaborative learning environment. May be repeated three times, but only 1 unit may be applied toward graduation. P/NP grading.

98XB. PEERS Collaborative Learning Workshops for Life Sciences Majors. (1) Seminar, three hours. Corequisite: associated undergraduate lecture course in life sciences. lint Program for Excellence in Education and Research in Science (PEERS) students. Development of intuition and problem-solving skills in collaborative learning environment. May be repeated three times, but only 1 unit may be applied toward graduation. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week for one term. Entry-level research for lower division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contracts require consent of Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

101. Understanding Scientific Literature and Content. (2 to 4) Seminar/discussion, one to two hours. Introduction to set of skills proven to help students read and understand scientific research papers. Offers opportunities to practice skills while interacting with scientists at UCLA. Reading and understanding scientific research papers is skill. It can develop quickly and be refined/practiced for rest of scientific journey. Uses CREATE learning framework, Consider, Read, Elucidate hypotheses, Analyze and interpret data, and Think of next Experiment. At UCLA, CRE- ATE includes additional dimensions of final Synthesis and Social context. Students work within learning pod and are guided by lead instructors. P/NP or letter grading.

107. Genetics. (5) Lecture, three hours; discussion, 75 minutes. Requisite: Chemistry M14A (or 20A), 14C or 30A. Not open for credit to students with credit for course 4. Advanced Mendelian genetics, recombination, biochemical genetics, mutation, DNA, genetic code, gene regulation, genes in populations. Letter grading.

110. Career Exploration in Life Sciences. (2) Seminar, two hours. Recommended for all students interested in exploring career options in life sciences, including income transfers. Designed to increase confidence and skills, and expand awareness through self-reflection and guest speakers. Networking, interviewing, resume, and cover letter building. P/NP grading.

130. Science Classroom Observation and Participation. (1) Seminar, one hour. Preparation: completion of three mathematics and/or science courses at level required of science majors. Observation, participation, and assist in classroom management, middle, and secondary schools. May be repeated for credit. P/NP grading.

M174. Health Disparities. (4) Same as Psychology M174. Lecture, three hours. Examination of health disparities and ways in which societal responses to race and ethnicity in combination with variety of other factors create differential quality and access to health-care resulting in poor health outcomes in racial/ethnic minorities. Basic foundation for critical thinking about assumptions that shape life sciences, medical research, clinical practice, and social and behavioral sciences. Apply related to racial and ethnic minority populations and to students to teach integrated concepts of culture and health disparities into other social, biological, political, psychological, genetic, and clinical health interests. P/NP grading.

188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators, individual study in regularly scheduled meetings with faculty mentor to discuss USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SB. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: course 188SA. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to finalize syllabus, individual contract with faculty mentor required. May not be repeated. Letter grading.

188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced corequisite: course 188SB. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to finalize syllabus, individual contract with faculty mentor required. May not be repeated. Letter grading.

188SD. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced corequisite: course 188SC. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to finalize syllabus, individual contract with faculty mentor required. May not be repeated. Letter grading.

192A. Methods and Application of Collaborative Learning Theory and Practice. (1) Seminar, one hour; clinic, six hours. Requisites: course 192 (may be taken concurrently) and at least one term of prior experience in same course in which collaborative learning theory is practiced and refined under supervision of instructors. With instructor guidance, students apply pedagogical principles based on current educational research, assist with development of innovative instructional materials, and receive frequent feedback on their progress. May be repeated three times for credit. Combination of courses 192A, 192B, 192C, 192D, and 192E may not be taken for more than total of 4 times or 4 courses. Letter grading.

192B. Methods and Application of Collaborative Learning Theory in Life Sciences. (4) Seminar, three hours; clinic, three hours. Requisite: course 192 (may be taken concurrently) and at least one term of prior experience in same course in which collaborative learning theory is practiced and refined under supervision of instructors. With instructor guidance, students apply pedagogical principles based on current educational research, assist with development of innovative instructional materials, and receive frequent feedback on their progress. May be repeated three times for credit. Combination of courses 192B, 192C, 192D, and 192E may not be taken for more than total of 4 times or 4 courses. Letter grading.

192C. Methods and Application of Collaborative Learning Theory in Life Sciences. (4) Seminar, three hours; clinic, three hours. Requisite: course 192 (may be taken concurrently) and at least one term of prior experience in same course in which collaborative learning theory is practiced and refined under supervision of instructors. With instructor guidance, students apply pedagogical principles based on current educational research, assist with development of innovative instructional materials, and receive frequent feedback on their progress. May be repeated three times for credit. Combination of courses 192B, 192C, 192D, and 192E may not be taken for more than total of 4 times or 4 courses. Letter grading.

192D. Methods and Application of Collaborative Learning Theory in Life Sciences. (4) Seminar, three hours; clinic, three hours. Requisite: course 192 (may be taken concurrently) and at least one term of prior experience in same course in which collaborative learning theory is practiced and refined under supervision of instructors. With instructor guidance, students apply pedagogical principles based on current educational research, assist with development of innovative instructional materials, and receive frequent feedback on their progress. May be repeated three times for credit. Combination of courses 192B, 192C, 192D, and 192E may not be taken for more than total of 4 times or 4 courses. Letter grading.

192E. Methods and Application of Collaborative Learning Theory in Life Sciences. (4) Seminar, three hours; clinic, three hours. Requisite: course 192 (may be taken concurrently) and at least one term of prior experience in same course in which collaborative learning theory is practiced and refined under supervision of instructors. With instructor guidance, students apply pedagogical principles based on current educational research, assist with development of innovative instructional materials, and receive frequent feedback on their progress. May be repeated three times for credit. Combination of courses 192B, 192C, 192D, and 192E may not be taken for more than total of 4 times or 4 courses. Letter grading.

192F. Undergraduate Practicum in Life Sciences. (4) Seminar, two hours; clinic, nine hours. Requisite: one course from 1, 2, 5, 9, 17A, 17B, 7C, 20, 23L, 30A, 30B, 107, 110. Limited to sophomores/juniors/seniors. Advanced training and supervised practicum for experienced undergraduate students. Under guidance of faculty members, students will develop professional skills and take leadership roles in mentoring students. May be repeated for credit. Letter grading.

192G. Collaborative Learning Theory and Practice: Anti-Racism Discourse. (3) Three hours; discussion, one hour. Students engage in anti-racism discourse. Peers circulate through, engage, and reflect on various topics that target systemic racism surrounding our communities through proactive small-group conversation and weekly action plans. Peers
practice communication skills with frequent assessment and feedback with facilitators. May be repeated three times for credit. Letter grading.

199. Directed Research or Senior Project in Life Sciences. (2) Seminar, two hours. Enforced requisite: course 3. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper/project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

495. Preparation for College-Level Teaching in Life Sciences. (2) Seminar, two hours. Corequisite: course 375. Designed for graduate students who are teaching assistants in Life Sciences Core Curriculum for first time and to be taken concurrently in term in which they teach. Prepares students for college-level teaching in large enrollment undergraduate courses, and provides professional development to support students pursuing diverse careers in life sciences. Study of inclusive, student-centered, and evidence-based teaching methodologies that include active learning, group work, formative assessment, backward course design, and reflective teaching practices that incorporate peer observations and constructive feedback. May not be repeated for credit. S/U grading.

LINGUISTICS

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Overview

The goal of the Department of Linguistics is the enrichment of knowledge about the nature, grammar, and history of human language. Linguistics is a theoretical discipline, akin to philosophy, anthropology, and cognitive psychology. It is important for prospective students to understand that studying linguistics is not a matter of learning to speak many languages. Linguistics courses draw examples from the grammars of a wide variety of languages, and the more languages linguists know about in depth (as distinct from possessing fluency in the use of them), the more likely they are to discover universal properties. It is also possible to pursue these universal aspects of human language through the intensive in-depth study of a single language. This accounts for the high proportion of examples from English and familiar European languages found in linguistics courses and research publications.

The core areas of linguistic theory are phonology (phonetics), morphology, syntax, and semantics. A grammar is a system of rules that characterize the phonetics, phonology, morphology, syntax, and semantics of a natural language. The properties of grammars are the central focus of linguistic theory.

Because language is central to all humanistic disciplines, as well as to several social sciences areas, it is studied from many points of view. Linguistics itself cannot be said to recognize a single optimal approach to the subject. Hence, the courses provide a variety of approaches that reflect the diversity of the field.

The Linguistics Department has consistently been ranked among the very best linguistics departments in the country. It offers programs leading to the Bachelor of Arts (BA), Master of Arts (MA), and Doctor of Philosophy (PhD) degrees.

Undergraduate Study

The undergraduate majors are of three types: (1) a major that concentrates entirely on general linguistics, (2) several majors that combine the basic courses of the general program with a language concentration or other related fields, and (3) a major in Applied Linguistics.

Graduate Study

The department offers MA and PhD degree programs in Linguistics, and its faculty participate in the programs for American Indian Studies, Computer Science, International Institute, Philosophy, and Psychology. Both the faculty and graduate program are internationally acclaimed, and attract some of the best and brightest graduate students from this country and abroad, with a current graduate student population of 40 students from 10 countries.

The goal of the department’s graduate program is to train students as university teachers and as researchers in the major areas of linguistics.

Theoretical Orientation

The Linguistics Department has a strong theoretical orientation committed to research in formal linguistic theory, addressing questions in the fields of phonetics, phonology, morphology, syntax, and semantics, and at the interfaces of these fields with the fields of psycholinguistics, computational linguistics, mathematical linguistics, historical linguistics, and the linguistic study of particular language areas (especially African languages and Indigenous languages of the Americas).

Field Work

Linguistics as an empirical science uses cross-linguistic evidence to develop and test theories of human language. In keeping with this goal, the program is committed to training graduate students to analyze primary data in the Field Methods sequence, in which the students work with a native speaker consultant of a little-studied language.

Substantial opportunities to develop fieldwork skills and to test theoretical ideas against novel data are provided, along with department funding for native speaker consultants. Several of the faculty have long experience in fieldwork and provide practical guidance to students embarking on their own field study. Los Angeles is probably the most linguistically diverse city in the U.S., thus providing a living laboratory for field work research.

Undergraduate Majors

Linguistics BA

Linguistics is the scientific study of languages as a general phenomenon. It aims to help answer broad questions concerning the nature of human cognition and communication. Students will learn about language universals as well as the ways in which languages differ from one another in terms of their sound patterns,
They will also learn about the linguistic theories explaining and constraining linguistic knowledge, informed in part by experimental investigations of child language acquisition and adult language processing. Successful graduates will receive a cognitive science education with a focus on language; they will develop skills in data analysis, analytic reasoning, and experimental methods.

Learning Outcomes
The Linguistics major has the following learning outcomes:

- Ability to apply critical thinking skills through linguistic data analysis in phonetics, phonology, syntax, semantics, and at least one other subfield
- Understanding of advanced theoretical concepts and/or analytical techniques in at least one subfield
- Ability to write technical material in linguistics, including language description and theory-based analysis
- Ability to access scholarly literature on language structure and use it in research

Entry to the Major
Transfer Students
Transfer applicants to the Linguistics major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of one foreign language or one year of two different foreign languages, including language teaching, speech pathology, knowledge to a wide variety of practices in language use from a variety of perspectives and experiences, and will be able to apply this knowledge to a wide variety of practices including language teaching, speech pathology, and translation and interpretation.

Requirements
Preparation for the Major
Required: Linguistics 20; two of the following: Anthropology 4, Philosophy 31, Psychology 10 (or 100A); completion of the equivalent to the sixth level of one foreign language or the equivalent to the third level of two different foreign languages.

The Major
Required: Eleven upper-division or graduate courses including Linguistics 103, 120A, 120B, 120C, two courses from C104, 110, 130, or 132, and two courses from 165A, 165B, 165C (students may substitute courses 200A, 200B, and 200C for 165A, 165B, and 165C respectively if they receive grades of A in 120A, 120B, and 120C respectively and have consent of instructor); and three upper-division elective courses from the Linguistics Department (minimum 4 grade units each).

Honors Program
Departmental honors are awarded at graduation to those students who have a grade-point average of 3.6 or better in their junior and senior years and who have received a grade of A in Linguistics 198A and 198B or in 199. Qualified students may be proposed by any member of the faculty to the faculty as a whole for the award of highest honors on the basis of a piece of research in linguistics completed at UCLA.

Computing Specialization
Students may select a specialization in Computing by (1) satisfying all the requirements for a bachelor’s degree in the specified major and (2) completing Program in Computing 10A and 10B and 10C (or Computer Science 31 and 32), Linguistics 185A, Mathematics 61, and one course selected from Linguistics C104, 127, 132, 165A, 165B, 165C, 180, 185B. Students graduate with a bachelor’s degree in their major and a specialization in Computing.

Policies
Preparation for the Major
Linguistics 20 must be passed with a letter grade of C or better prior to beginning upper-division coursework in the major.

The Major
No more than one course from 197, 198A, 198B, and 199 may be applied toward the major.

Applied Linguistics BA
The Applied Linguistics major investigates linguistic issues relevant to the everyday world, shedding light on the nature of language and language use. Students will learn linguistic theory, the study of the structure of human language generally. With its focus on service learning, students will also learn linguistic practice, engaging in the community, schools, and work places of our geographic setting. Successful graduates will be well acquainted with language use from a variety of perspectives and experiences, and will be able to apply this knowledge to a wide variety of practices including language teaching, speech pathology, and translation and interpretation.

Learning Outcomes
The Applied Linguistics major has the following learning outcomes:

- Ability to apply critical thinking skills through linguistic data analysis in phonetics, phonology, syntax, and at least one other subfield
- Understanding of advanced theoretical concepts and/or analytical techniques in at least one subfield
- Ability to write technical material in linguistics, including language description and theory-based analysis
- Ability to access scholarly literature on language structure and use it in research

Entry to the Major
Transfer Students
Transfer applicants to the Applied Linguistics major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of one foreign language or one year of two different foreign languages, including language teaching, speech pathology, and translation and interpretation.

Requirements
Preparation for the Major
Required: Anthropology 4 or Psychology 10, Linguistics 20, and completion of the equivalent to the sixth level of one foreign language or the equivalent to the third level of two different foreign languages.

The Major
Required: Ten upper-division courses as follows: Linguistics 102 (or 103), 119A (or 120A), 119B, 119C (or Computer Science 31 and 32), Linguistics 185A, Mathematics 61, and one course selected from Linguistics C104, 115, 120C, 130, 140, 141, 144, 146, 170, two upper-division elective courses taken in the Linguistics Department (minimum 4 graded units each), and one course selected from Anthropology 151, M132P, 132Q, 132R, 135, 154P, 154Q, M156, M159, Arabic 180, 181, Armenion 110, Chicano/o and Central American Studies 164XP, M167XP, M170XP, Communication 119, M125, M144A, French 105, German 140, Hebrew 180A, 180B, Italian 131, Linguistics M116, M146, M176A, M176B, M177, M178, Portuguese 100A, 100B, Slavic CM114, Spanish 100A, 100B, 160, or a linguistics-related course (minimum 4 graded units) offered by another department in consultation with the Linguistics Department undergraduate student affairs officer.

Honors Program
Departmental honors are awarded at graduation to those students who have a grade-point average of 3.6 or better in their junior and senior years and who have received a grade of A in Linguistics 198A and 198B or in 199. Qualified students may be proposed by any member of the faculty to the faculty as a whole for the award of highest honors on the basis of a piece of research in linguistics completed at UCLA.

Computing Specialization
Students may select a specialization in Computing by (1) satisfying all the requirements for a bachelor’s degree in the specified major and (2) completing Program in Computing 10A and 10B and 10C (or Computer Science 31 and 32), Linguistics 185A, Mathematics 61, and one course selected from Linguistics C104, 127,
The Linguistics and Anthropology major combines the basic courses of the general linguistics program with that of anthropology, the study of humankind. Students will learn linguistic theory, the study of the structure of human language generally. They will also learn the many ways in which language affects human history, social identity, social interaction, and politics. Successful graduates will be well acquainted with linguistic structure, language diversity, and language typology, as well as the anthropological and social consequences of the nature of human language.

Learning Outcomes

The Linguistics and Anthropology major has the following learning outcomes:

- Ability to apply critical thinking skills through linguistic data analysis in phonetics, phonology, syntax, and at least one other subfield
- Understanding of advanced theoretical concepts and/or analytical techniques in at least one subfield
- Ability to write technical material in linguistics, including language description and theory-based analysis
- Ability to access scholarly literature on language structure and linguistic anthropology, and use it in research

Entry to the Major

Transfer Students

Transfer applicants to the Linguistics and Anthropology major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one introduction to linguistics course and two years of one foreign language or one year of two different foreign languages. One cultural and communication course is strongly recommended.

Linguistics and Asian Languages and Cultures BA

The major combines the basic courses of the general linguistics program with that of East Asian languages and cultures, focusing on one of the three language tracks (Chinese, Japanese, Korean). Students are able to study the civilizations of China, Korea, Japan, and India; and enrich their knowledge about the nature, grammar, and history of human language at the same time.

Learning Outcomes

The Linguistics and Asian Languages and Cultures major has the following learning outcomes:

- Ability to apply critical thinking skills through linguistic data analysis in phonetics, phonology, syntax, and at least one other subfield
- Understanding of advanced theoretical concepts and/or analytical techniques in at least one subfield
- Ability to write technical material in linguistics, including language description and theory-based analysis
- Ability to access scholarly literature on language structure and use it in research

Entry to the Major

Transfer Students

Transfer applicants to the Linguistics and Asian Languages and Cultures major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of either Chinese, Japanese, or Korean, introduction to linguistics course, one cultural anthropology course, one Chinese, Japanese, or Korean civilization course, and one year of a second foreign language.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major

Required: Anthropology 4, Linguistics 20, and completion of the equivalent to the sixth level of any foreign language or the equivalent to the third level of two different foreign languages.

The Major

Required: Eleven upper-division courses as follows: Linguistics 102 (or 110), 110, 119A (or 120A), 120B or 127, M146 (or Anthropology M150); two courses from 114, 120C, 144, 160, 161, 170; one course from Anthropology 151 or Sociology CM124A (or Communication M144A); and three upper-division electives from the Anthropology 130 series (one course only), the 150 series (one course only), the 160 series (one course only), Sociology CM124A (or Communication M144A), CM125 (or Communication M125).

Honors Program

Departmental honors are awarded at graduation to those students who have a grade-point average of 3.6 or better in their junior and senior years and who have received a grade of A in Linguistics 198A and 198B or in 199. Qualified students may be proposed by any member of the faculty to the faculty as a whole for the award of highest honors on the basis of a piece of research in linguistics completed at UCLA.

Computing Specialization

Students may select a specialization in Computing by (1) satisfying all the requirements for a bachelor’s degree in the specified major and (2) completing Program in Computing 10A and 10B and 10C (or Computer Science 31 and 32), Linguistics 185A, Mathematics 61, and one course selected from Linguistics C104, 127, 132, 165A, 165B, 165C, 180, 185B. Students graduate with a bachelor’s degree in their major and a specialization in Computing.

Linguistics and Asian Languages and Cultures BA

The major combines the basic courses of the general linguistics program with that of East Asian languages and cultures, focusing on one of the three language tracks (Chinese, Japanese, Korean). Students are able to study the civilizations of China, Korea, Japan, and India; and enrich their knowledge about the nature, grammar, and history of human language at the same time.

Learning Outcomes

The Linguistics and Asian Languages and Cultures major has the following learning outcomes:

- Ability to apply critical thinking skills through linguistic data analysis in phonetics, phonology, syntax, and at least one other subfield
- Understanding of advanced theoretical concepts and/or analytical techniques in at least one subfield
- Ability to write technical material in linguistics, including language description and theory-based analysis
- Ability to access scholarly literature on language structure and use it in research

Entry to the Major

Transfer Students

Transfer applicants to the Linguistics and Asian Languages and Cultures major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of either Chinese, Japanese, or Korean, introduction to linguistics course, one cultural anthropology course, one Chinese, Japanese, or Korean civilization course, and one year of a second foreign language.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major

Required: Anthropology 4, Linguistics 20, and either Chinese 50, Japanese 50, or Korean 50, as appropriate; completion of the equivalent to the sixth level in either Chinese, Japanese, or Korean, and the equivalent to the third level of a second foreign language.

The Major

Required: Eleven upper-division courses as follows: Linguistics 103, 110, 120A, 120B, 165A (or 165B), one upper-division elective course in the Linguistics Department (minimum 4 graded units); for the Chinese track: Chinese 100A, 100B, 100C (or 100D, 100E, 100F, or 100G), two courses from Asian 104, Chinese 101A, 101B, 101C, 103, 110A, 110B, 110C, C120, 130A, 130B, 165; for the Japanese track: Japanese 100A, 100B, 100C (or 100D, 100E, 100F, or 100G), two courses from Asian 104, Japanese 101A, 101B, 101C, 110A, 110B, M120, CM123 (or CM127), 130A, 130B; for the Korean track: Korean 100A, 100B,

Honors Program
Departmental honors are awarded at graduation to those students who have a grade-point average of 3.6 or better in their junior and senior years and who have received a grade of A in Linguistics 198A and 198B or in 199. Qualified students may be proposed by any member of the faculty to the facility as a whole for the award of highest honors on the basis of a piece of research in linguistics completed at UCLA.

Computing Specialization
Students may select a specialization in Computing by (1) satisfying all the requirements for a bachelor’s degree in the specified major and (2) completing Program in Computing 10A and 10B and 10C (or Computer Science 31 and 32), Linguistics 185A, Mathematics 61, and one course selected from Linguistics C104, 127, 132, 165A, 165B, 165C, 180, 185B. Students graduate with a bachelor’s degree in their major and a specialization in Computing.

Policies

Preparation for the Major
Linguistics 20 must be passed with a letter grade of C or better prior to beginning upper-division coursework in the major.

Students who complete an advanced upper-division language course are considered to have completed the equivalent of whatever courses are requisite to that advanced language course (e.g., if students complete German 152, they have automatically satisfied the requirement of the sixth level of work in German).

The Major
A 2.0 grade-point average in linguistics courses is required for the major.

Linguistics and Computer Science BA

The major combines the basic courses of the general linguistics program with that of computer science, accommodating students who want professional preparation in computer science but do not necessarily have a strong interest in computer systems hardware. The goal of linguistics is the enrichment of knowledge about the nature, grammar, and history of human language. Linguistics is a theoretical discipline, akin to philosophy, anthropology, and cognitive psychology.

Learning Outcomes

The Linguistics and Computer Science major has the following learning outcomes:

- Ability to apply critical thinking skills through linguistic data analysis in phonetics, phonology, syntax, and at least one other subfield
- Understanding of advanced theoretical concepts and/or analytical techniques in at least one subfield
- Ability to write technical material in linguistics, including language description and theory-based analysis
- Ability to access scholarly literature on language structure and use it in research
- Understanding of human language systems as computational devices
- Understanding of fundamental concepts applicable to engineering problems in natural language processing

Entry to the Major

Transfer Students
Transfer applicants to the Linguistics and Computer Science major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one introduction to linguistics course, two calculus courses, four computer programming courses, and two years of one foreign language or one year in each of two foreign languages. One discrete structures course and one probability theory course are recommended.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major

Required: Linguistics 20, Computer Science 31, 32, 33, 35L, Mathematics 31A or 31AL, 31B, 61, 70, completion of the third term in one foreign language.

The Major

Required: Eleven upper-division courses as follows: Linguistics 102 (or 103), 119A (or 120A), 120B, 120C, 165A (or 165B or 165C), 185A, one course selected from C104, 127, 132, 165A, 165B, 165C, 180, 185B; Computer Science 131, 132 or 161, 180, 181.

Honors Program

Departmental honors are awarded at graduation to those students who have a grade-point average of 3.6 or better in their junior and senior years and who have received a grade of A in Linguistics 198A and 198B or in 199. Qualified students may be proposed by any member of the faculty to the facility as a whole for the award of highest honors on the basis of a piece of research in linguistics completed at UCLA.

Policies

Preparation for the Major
Linguistics 20 must be passed with a letter grade of C or better prior to beginning upper-division coursework in the major.

The Major
A 2.0 grade-point average in linguistics courses is required for the major.

Honors Program
Departmental honors are awarded at graduation to those students who have a grade-point average of 3.6 or better in their junior and senior years and who have received a grade of A in Linguistics 198A and 198B or in 199. Qualified students may be proposed by any member of the faculty to the facility as a whole for the award of highest honors on the basis of a piece of research in linguistics completed at UCLA.

Linguistics and English BA

The major combines the basic courses of the general linguistics program with that of English. Students are able to study the literatures and cultures of those parts of the world in which English is the primary language, the history and structure of the English language itself, and enrich their knowledge about the nature, grammar, and history of human language at the same time.

Learning Outcomes

The Linguistics and English major has the following learning outcomes:

- Ability to apply critical thinking skills through linguistic data analysis in phonetics, phonology, syntax, and at least one other subfield
- Understanding of advanced theoretical concepts and/or analytical techniques in at least one subfield
- Ability to write technical material in linguistics, including language description and theory-based analysis
-Ability to access scholarly literature on language structure and use it in research

Entry to the Major

Transfer Students
Transfer applicants to the Linguistics and English major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one introduction to linguistics course, one critical reading and writing course, one year of English literature survey courses, and two years of one foreign language or one year of two different foreign languages.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major

Required: Linguistics 20, English 4W (or 4HW), 10A, 10B, 10C, completion of the equivalent to the sixth level of one foreign language or the equivalent to the third level of two different foreign languages.

The Major

Required: Eleven upper-division courses as follows: Linguistics 103, 110, 120A, 120B, 165A or 165B (or 200A or 200B with a grade of A in 120A or 120B respectively and consent of instructor), one upper-division elective in the Linguistics Department (minimum 4 graded units), two courses selected from English 113A, 120, 141B, or Linguistics 170, and three elective courses selected from English 113A, 120, 140A, 140B, 141B, 150A, 150B, 151, the 150 series (one course only), the 160 series (one course only), the 170 series (one course only).

Honors Program

Departmental honors are awarded at graduation to those students who have a grade-point average of 3.6 or better in their junior and senior years and who have received a grade of A in Linguistics 198A and 198B or in 199. Qualified students may be proposed by any member of the faculty to the facility as a whole for the award of highest honors on the basis of a piece of research in linguistics completed at UCLA.

Policies

Preparation for the Major

Linguistics 20 must be passed with a letter grade of C or better prior to beginning upper-division coursework in the major.

The Major
A 2.0 grade-point average in linguistics courses is required for the major.

Literary Specialization

Students may select a specialization in Language Processing or one in each of two foreign languages.

Transfer Students

Transfer applicants to the Linguistics and English major must complete as many of the following introductory courses as possible prior to admission to UCLA: one introduction to linguistics course, one critical reading and writing course, one year of English literature survey courses, and two years of one foreign language or one year of two different foreign languages.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major

Required: Linguistics 20, English 4W (or 4HW), 10A, 10B, 10C, completion of the equivalent to the sixth level of one foreign language or the equivalent to the third level of two different foreign languages.

The Major

Required: Eleven upper-division courses as follows: Linguistics 103, 110, 120A, 120B, 165A or 165B (or 200A or 200B with a grade of A in 120A or 120B respectively and consent of instructor), one upper-division elective in the Linguistics Department (minimum 4 graded units), two courses selected from English 113A, 120, 141B, or Linguistics 170, and three elective courses selected from English 113A, 120, 140A, 140B, 141B, 150A, 150B, 151, the 150 series (one course only), the 160 series (one course only), the 170 series (one course only).

Honors Program

Departmental honors are awarded at graduation to those students who have a grade-point average of 3.6 or better in their junior and senior years and who have received a grade of A in Linguistics 198A and 198B or in 199. Qualified students may be proposed by any member of the faculty to the facility as a whole for the award of highest honors on the basis of a piece of research in linguistics completed at UCLA.
Computing Specialization
Students may select a specialization in Computing by (1) satisfying all the requirements for a bachelor’s degree in the specified major and (2) completing Program in Computing 10A and 10B and 10C (or Computer Science 31 and 32), Linguistics 185A, Mathematics 61, and one course selected from Linguistics C104, 127, 132, 165A, 165B, 165C, 180, 185B. Students graduate with a bachelor’s degree in their major and a specialization in Computing.

Policies

Preparation for the Major
Linguistics 20 must be passed with a letter grade of C or better prior to beginning upper-division coursework in the major.

Students who complete an advanced upper-division language course are considered to have completed the equivalent of whatever courses are requisite to that advanced language course (e.g., if students complete German 152, they have automatically satisfied the requirement of the sixth level of work in German).

The Major
A 2.0 grade-point average in linguistics courses is required for the major.

The same course may not be used to satisfy more than one upper-division major requirement.

Linguistics and Philosophy BA

The major combines the basic courses of the general linguistics program with that of philosophy, for students who are reflective about their beliefs or who wish to become so. Students enrich their knowledge about the nature, grammar, and history of human language, and are given the opportunity to ponder the foundations of almost any other subject to which they are exposed—whether history, religion, government, law, or science.

Learning Outcomes

The Linguistics and Philosophy major has the following learning outcomes:

- Ability to apply critical thinking skills through linguistic data analysis in phonetics, phonology, syntax, semantics, and at least one other subfield
- Understanding of advanced theoretical concepts and/or analytical techniques in at least one subfield
- Ability to write technical material in linguistics, including language description and theory-based analysis
- Ability to access scholarly literature on language structure and use it in research

Entry to the Major

Transfer Students
Transfer applicants to the Linguistics and Philosophy major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one introduction to linguistics course, one symbolic logic course and two courses from Philosophy 7, 8, 21, 23, M24 (or Linguistics M7), and completion of the equivalent to the sixth level of one foreign language or the equivalent to the third level of two different foreign languages.

Branching

Students may select a specialization in Computing, Computing Specialization, and a specialization in Computing.

Linguistics and Psychology BA

The major combines the basic courses of the general linguistics program with that of psychology. Students are able to study and explain human and animal behavior, both normal and abnormal, as well as enrich their knowledge about the nature, grammar, and history of human language.

Learning Outcomes

The Linguistics and Psychology major has the following learning outcomes:

- Ability to apply critical thinking skills through linguistic data analysis in phonetics, phonology, syntax, and at least one other subfield
- Understanding of advanced theoretical concepts and/or analytical techniques in at least one subfield
- Ability to write technical material in linguistics, including language description and theory-based analysis
- Ability to access scholarly literature on language structure and use it in research

Entry to the Major

Transfer Students
Transfer applicants to the Linguistics and Psychology major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one introduction to linguistics course, one introduction to psychology course, one introduction to cognitive science course, one psychological statistics course, one psychology research methods course, and two years of one foreign language or one year of two different foreign languages. One introduction to programming course is strongly recommended.

Branching

Students may select a specialization in Computing by (1) satisfying all the requirements for a bachelor’s degree in the specified major and (2) completing Program in Computing 10A and 10B and 10C (or Computer Science 31 and 32), Linguistics 185A, Mathematics 61, and one course selected from Linguistics C104, 127, 132, 165A, 165C, 180, 185B. Students graduate with a bachelor’s degree in their major and a specialization in Computing.

Policies

Preparation for the Major
Linguistics 20 must be passed with a letter grade of C or better prior to beginning upper-division coursework in the major.

Students who complete an advanced upper-division language course are considered to have completed the equivalent of whatever courses are requisite to that advanced language course (e.g., if students complete German 152, they have automatically satisfied the requirement of the sixth level of work in German).

The Major
A 2.0 grade-point average in linguistics courses is required for the major.
Honors Program
Departmental honors are awarded at graduation to those students who have a grade-point average of 3.6 or better in their junior and senior years and who have received a grade of A in Linguistics 198A and 198B or in 199. Qualified students may be proposed by any member of the faculty to the faculty as a whole for the award of highest honors on the basis of a piece of research in linguistics completed at UCLA.

Computing Specialization
Students may select a specialization in Computing by (1) satisfying all the requirements for a bachelor’s degree in the specified major and (2) completing Program in Computing 10A and 10B and 10C (or Computer Science 31 and 32), Linguistics 185A, Mathematics 61, and one course selected from Linguistics C104, 127, 132, 165A, 165B, 165C, 180, 185B. Students graduate with a bachelor’s degree in their major and a specialization in Computing.

Policies
Preparation for the Major
Linguistics 20 must be passed with a letter grade of C or better prior to beginning upper-division coursework in the major.

Students who complete an advanced upper-division language course are considered to have completed the equivalent of whatever courses are requisite to that advanced language course (e.g., if students complete German 152, they have automatically satisfied the requirement of the sixth level of work in German).

The Major
A 2.0 grade-point average in linguistics courses is required for the major.

Linguistics and Spanish BA
The major combines the basic courses of the general linguistics program with that of Spanish. Students are able to study the Spanish language, literatures, and cultures of the Hispanic heritage, as well as enrich their knowledge about the nature, grammar, and history of human language.

Learning Outcomes
The Linguistics and Spanish major has the following learning outcomes:

- Ability to apply critical thinking skills through linguistic data analysis in phonetics, phonology, syntax, and at least one other subfield
- Understanding of advanced theoretical concepts and/or analytical techniques in at least one subfield
- Ability to write technical material in linguistics, including language description and theory-based analysis
- Ability to access scholarly literature on language structure and use it in research

Entry to the Major
Transfer Students
Transfer applicants to the Linguistics and Spanish major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of Spanish; one Spanish composition course; one Spanish, Portuguese, and nature of language course; one Spanish civilization course or one Spanish American civilization course; one introduction to linguistics course; and one year of a second foreign language.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements
Preparation for the Major
Required: Linguistics 20, Spanish 25 (or 27), M35, 42 (or 44), and completion of the equivalent to the fifth level of Spanish, and completion of the equivalent to the third level of a second foreign language.

The Major
Required: Eleven upper-division courses as follows: Linguistics 103, 110, 120A, 120B, 165A (or 165B), one upper-division elective course in the Linguistics Department (minimum 4 graded units), Spanish 100A, 100B, 119, 160, and one additional upper-division Spanish course.

Honors Program
Departmental honors are awarded at graduation to those students who have a grade-point average of 3.6 or better in their junior and senior years and who have received a grade of A in Linguistics 198A and 198B or in 199. Qualified students may be proposed by any member of the faculty to the faculty as a whole for the award of highest honors on the basis of a piece of research in linguistics completed at UCLA.

Computing Specialization
Students may select a specialization in Computing by (1) satisfying all the requirements for a bachelor’s degree in the specified major and (2) completing Program in Computing 10A and 10B and 10C (or Computer Science 31 and 32), Linguistics 185A, Mathematics 61, and one course selected from Linguistics C104, 127, 132, 165A, 165B, 165C, 180, 185B. Students graduate with a bachelor’s degree in their major and a specialization in Computing.

Policies
Preparation for the Major
Linguistics 20 must be passed with a letter grade of C or better prior to beginning upper-division coursework in the major.

Students who complete an advanced upper-division coursework in the major.

The Major
Required Lower-Division Course (5 units): Linguistics 20.
Required Upper-Division Courses (27 to 30 units): Six courses, which must include Linguistics 102 (or 103), 119A (or 120A), 120B, two elective courses selected from C104 through 185B, and an additional elective linguistics course, which may be upper- or lower-division.

Students who plan to complete the 165 course series must first take the corresponding 120 course series.

Policies
Linguistics 20 must be passed with a letter grade of C or better prior to beginning upper-division coursework in the minor.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Major
Linguistics MA, CPhil, PhD
Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.
American Sign Language

Lower-Division Courses


8. Intermediate American Sign Language. (15) Lecture, 20 hours. Not open to students with credit for course 3 or students who have learned, from whatever source, enough American sign language to qualify for more advanced courses. Intensive elementary instruction in American sign language equivalent to courses 1, 2, and 3. Offered in summer only. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

98HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

99HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for a maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

M115. Enforcing Normalcy: Deaf and Disability Studies. (4) Same as Disability Studies M115. Lecture, three hours. Exploration of historical, medical, social, political, philosophical, and cultural influences that have constructed categories of normalcy, disability, and deafness. Building on writing of Michel Foucault and critical work in field of disability studies, inquiry into institutions that have enforced standards of normalcy throughout 19th and 20th centuries to present. Explores critical and cultural approaches to language and culture in West, history of eugenics, and contemporary bioethics issues confronting disability and deaf communities. P/NP or letter grading.

M120. History of Deaf Communities in America. (4) (Same as History M147E.) Lecture, three hours; discussion, one hour (when scheduled). Designed for junior/seniors. Study of history and culture of deaf communities in America (circa 1800 to present) by exploring major events impacting deaf people, including development of sign language, deaf education, autism, politics of deafness, eugenics, deaf revolution movements, and role of deaf organizations in development of emergence, growth, and survival of America’s deaf community and development of deaf identity over time. P/NP or letter grading.

121. History of Mass Media and Deaf Community. (4) Lecture, three hours. Historical survey of mass media (print, film, television, and Internet) as sources and interpreters of deafness and deaf people within context of U.S. children’s childhood and communication of historical changes in products of mass media within deaf community and ways of criticizing media sources. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

Linguistics

Lower-Division Courses

1. Introduction to Study of Language. (5) Lecture, three hours; discussion, one hour. Summary for general undergraduates of what is known about human language; biological basis of language, scientific study of language and human cognition; uniqueness of human language, its structure, universality, its diversity; language in social and cultural setting; language in relation to other aspects of human inquiry and knowledge. P/NP or letter grading.


3. American Sign Language: Structure and Culture. (5) Lecture, four hours; discussion, one hour (when scheduled). Introduction to linguistic diversity of world and to such core areas of linguistics as study of sound production and patterning (phonetics and phonology), word formation (morphology), and sentence formation (syntax). Structural characteristics of world languages and methods of classifying languages into families. Detailed discussion of representative languages with audiovisual illustrations to acquaint students with distinctive features of several key language families. Discussion of such linguistic concepts as pidgin and creole, un- affiliated languages, language contact, and language endangerment, together with related sociopolitical issues. P/NP or letter grading.

6. Out of Mouths of Babes. (4) Lecture, six hours. How children acquire complex tapestry of human cognitive achievements. Look at amazing linguistic abilities of infants and their first perception and production of speech sounds, then investigation of how children learn to comprehend and produce meaningful utterances. Understanding sentences. Language acquisition in special populations such as children acquiring sign languages, bilingual children, and people acquiring language beyond critical period. Focus mainly on English, with consideration of other languages. Offered in summer only. P/NP or letter grading.

M7. Language and Identity. (5) Same as Philosophy M242. Lecture, four hours; discussion, one hour (when scheduled). How do we project or project our own identity? How do we use it to perceive or shape identity of others? Introduction to speech act theory and various claims that speech act theory can account for systematic of human; marginalization of racial minorities; and, in some cases, incitement to violence through hate speech. Provides foundation for students of linguistic theory, philosophy, sociology, anthropology, and communication studies. P/NP or letter grading.

8. Language in Context. (4) Lecture, four hours; discussion, one hour (when scheduled). How is meaning of language influenced by world around us? Introduction to pragmatics, speech acts, ordinary language philosophy, and linguistic relativity. Good foundation for students of linguistic theory, philosophy, sociology, anthropology, and communication studies. P/NP or letter grading.

9W. Linguistic Humor: Amusing and Abusing with Language. (5) Seminar, five hours. Requisite: English Composition 3. Study of how principles of science of linguistics are applied in analyzing language structure. Data from humor and other amusements, such as secret languages (Pig Latin and more). Introduction to basics of linguistics analysis, including language sound systems, syntactic structure, language, word meaning, and pragmatics. Focus on nature of language as innate part of human biology that allows people from all cultural and linguistic backgrounds to acquire language for human communication and what is shaped by culture as to what counts as funny. Satisfies Writing II requirement. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

20. Introduction to Linguistic Analysis. (5) Lecture, four hours; discussion, one hour (when scheduled). Introduction to theory and methods of linguistics: universal properties of human language; phonetic, phonological, morphological, syntactic, and semantic structures and analysis; nature and form of grammar. P/NP or letter grading.

40W. Language and Gender: Introduction to Gender and Stereotypes. (5) Formerly numbered Applied Linguistics 40W. Lecture, four hours; discussion, two hours. Enforced requisite: English Composition 3. Prior knowledge of foreign languages not required. Introduction to language from sociopolitical perspective of gender. Use of research and examples in English and other languages to frame discussion of male and female gendered languages and gendered language, as reflected in lexicon, language behavior, phonetics and intonation, and language acquisition and linguistic change. Satisfies Writing II requirement. P/NP or letter grading.

88A-88B. Lower-Division Seminars. (4–4) Seminar, three hours. Limited to freshmen/sophomores. Variable topics; consult Schedule of Classes, College of
Letters and Science, or department for topics to be offered in specific term. May be repeated for credit. P/NP or letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 as an upper-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be repeated toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as an upper-division lecture course, individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

97. Variable Topics in Linguistics. (1 to 4) Seminar, three hours; fieldwork, two hours. Variable topics offered by departmental faculty members. May be repeated for credit with topic change. P/NP or letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research for other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in course, excluding honors level. Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

102. Introduction to Applied Phonetics. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: course 20. Not open for credit to students with credit for course 103. Phonetics of variety of languages and phonetic phenomena that occur in language of world. Extensive practice in perception and production of such phenomena. P/NP or letter grading.

104. Experimental Phonetics. (5) Formerly numbered 104.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: course 20. Not open for credit to students with credit for course 102. Phonetics of variety of languages and phonetic phenomena that occur in language of world. Extensive practice in perception and production of such phenomena. Survey of principal techniques of experimental phonetics. Use of laboratory equipment to investigate acoustic properties of speech. Topics include experimental design; theoretical basis of acoustic structure of speech sounds; computer-based speech processing and analysis. Concurrently scheduled with course C204A. P/NP or letter grading.

105. Morphology. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: course 20. In linguistics, morphology is study of word structure. Morphological theory seeks to answer questions such as how should words and their component parts (roots, prefixes, suffixes, vowel changes) be classified crosslinguistically? how do speakers store, produce, and process complex words (words with affixes, compounds)? how do speakers know how to produce correct word forms even when they have not previously heard them and how do speakers know that particular words are well-formed or ill-formed? is there principled distinction in traditional division between inflection and derivation? lecture is designed to develop basic competence in analysis of word structure.Letter grading.

110. Introduction to Historical Linguistics. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 20, 102 or 103, 119A or 120A. Methods and theories appropriate to historical study of language, such as comparative method and method of internal reconstruction. Sound change, grammatical change, semantic change. P/NP or letter grading.

110G. Introduction to Historical Linguistics for Graduate Students. (2) Lecture, four hours. Limited to and designed for entering linguistics graduate students. Enforced requisite: course 119A or 120A. Survey of theories of historical linguistics. Methodologies and theories appropriate to historical study of language, such as comparative methods and method of internal reconstruction. Sound change, grammatical change, semantic change. S/U grading.

111. Introduction. (5) Formerly numbered 111.) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 102 or 103, and 119A or 120A or 120B. Recommended requisite: course C104. Survey of intonational theory for English and other languages, with particular emphasis on phonological models of intonation. Students learn to transcribe intonational elements. Concurrently scheduled with course C211. P/NP or letter grading.

114. American Indigenous Linguistics. (5) Lecture, four hours; discussion, one hour (when scheduled). Strongly recommended preparation: course 20. Survey of major classifications of American indigenous languages; writing systems for American indigenous languages; American indigenous languages in social and historical context. One or more topics may be investigated in detail. P/NP or letter grading.

115. Linguistics and Speech Pathology. (2 or 4) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 102 or 103, and 119A or 120A. Introduction to field of speech pathology. Topics include biological foundations of speech, language, and hearing; and disorders of speech production, language, voice, and hearing, affecting children and adults. In-class presentation and final term paper required if taken for 4 units. P/NP or letter grading.

116. Introduction to Japanese Linguistics. (4) (Same as Japanese M120.) Lecture, three hours; discussion, one hour (when scheduled). Enforced requisite: one or two of Japanese 3 or Japanese placement test. Introduction to Japanese grammar and sociolinguistics through reading, discussion, and problem solving in phonology, syntax, semantics, and descriptive pragmatics. Letter grading.

119A. Applied Phonology. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 20, and 102 or 103. Not open for credit to students with credit for course 102. Sound structures and sound patterns in world’s languages. Rules, rule ordering, features, syllable, and higher structure. Comparison of sound patterns of different languages. Tools of phonology as applicable to other fields. P/NP or letter grading.

120A. Phonology I. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 20, 102 or 103. Introduction to phonological theory and analysis, Rules, representations, underlying forms, derivations, Justification of phonological analyses. Emphasis on practical skills with problem sets. P/NP or letter grading.

120B. Syntax I. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: course 20. Course 120A is not requisite to 120B. Descriptive analysis of morphological and syntactic structures in natural languages; emphasis on insight into nature of such structures rather than linguistics formalization. P/NP or letter grading.

120C. Semantics I. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisite: course 119B or 120B. Survey of most important theoretical and descriptive claims about nature of meaning. P/NP or letter grading.

127. Syntactic Typology and Universals. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: course 119B or 120B. Emphasis on how theories in formal models of intonation are applied to intonational structures in a range of languages presented and analyzed. P/NP or letter grading.

C110. Romance Syntax: French. (4) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: course 120B. Aspects of structure of French language, with emphasis on properties of construction not found in English. Concurrently scheduled with course C228A. P/NP or letter grading.

C128B. Romance Syntax: French. (4) Lecture, four hours. Preparation: some knowledge of French (or one Romance language). Enforced requisite: courses 120B, C128A. Aspects of structure of French language, with emphasis on properties of construction not found in English. Concurrently scheduled with course C228B. P/NP or letter grading.

130. Language Development. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: courses 20, 119A or 120A, 119B or 120B. Survey of research and theoretical perspectives in language development in children. Discussion and examination of child language data from English and other languages. Emphasis on universal aspects of development. Topics include infant speech perception and production, development of phonology, morphology, syntax, and semantics. P/NP or letter grading.

132. Language Processing. (5) Lecture, four hours; laboratory, one hour (when scheduled). Requisites: courses 20, 119A or 120A, 119B or 120B. Central issues in language comprehension and production, with emphasis on how theories in formal processing models. Topics include word understanding (with emphasis on spoken language), parsing, anaphora and inference, speech error models of sentence production, and computation of syntactic structure during production. P/NP or letter grading.

135. Neurolinguistics. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: courses 20, 119A or 120A, 119B or 120B. Examination of relationship between brain, language, and linguistic theory, with evidence presented from atypical language development and language disorders in the mature brain. Topics include methodologies to investigate normal and atypical hemispheric specialization for language and children and adults with acquired and/or congenital language disorders. Concurrently scheduled with course C235. P/NP or letter grading.

140. Bilingualism and Second Language Acquisition. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: courses 119A or 120A, 119B or 120B. Introduction to study of childhood bilingualism and adult and child second language (L2) acquisition. Survey of theories of L2 grammar and grammatical processes underlying L2 bilingual acquisition. Discussion of neurolinguistic and social aspects of bilingualism. Concurrently scheduled with course C244. P/NP or letter grading.

M141. Current Methods of Language Teaching. (5) (Same as English Composition M141.) Lecture, four hours; discussion, one hour. Enforced requisite: course 20. Survey of theory and practice in teaching second languages, including (1) past and present methods used to teach second languages, (2) current theory and practice underlying skills-based instruction of an integrated approach, (3) the affect second language acquisition and learning. Development of knowledge base in and rational base for design, development, implementation, and evaluation of second language instruction programs. P/NP or letter grading.

M146. Language in Culture. (5) (Same as Anthropology M150.) Lecture; three hours, discussion; one hour, fieldwork, two hours. Requisite: course 20 or Anthropology M150 or equivalent as assigned. Study of the relationship of habitual thought and behavior to language; and language and classification of experience. Holistic approach to study of language, with emphasis on relationship of linguistic anthropology to fields of biological, cultural, and social anthropology, as well as archeology. P/NP or letter grading.

M150. Introduction to Indo-European Linguistics. (5) (Same as Indo-European Studies M150.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: course 1 or 20. Indo-European languages (ancient and modern), including their relationships, chief characteristics, writing systems, and sociolinguistics. Study of reconstructed Indo-European proto-language and proto-culture. One or more Indo-European languages may be investigated in detail. P/NP or letter grading.

160. Field Methods. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 102 or 103, 119A or 120A, 119B or 120B. Analysis of language unknown to members of class from data elicited from native speaker of that language. P/NP or letter grading.

161. Language Documentation. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: courses 20 (enforced), and 105 or 119A or 120A. Issues in language documentation, including collection of primary data using linguistic field methods, organizing data into documents (annotated texts, dictionaries, multimedia presentations, technical articles), auditing and supervising students (speakers of target languages, linguists, scholars outside linguistics, general public), presentation and storage of documents (paper publication, online publication, electronic and physical archives), documenting endangered languages, and organizations and initiatives for documenting endangered languages. Presentations focus on case studies. Student projects in assembling primary data and creating annotated texts with commentary. P/NP or letter grading.

165A. Phonology I. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisite: course 120A. To be taken in term following completion of course 120A or as soon as possible thereafter. Further study in phonological theory and analysis: autosegmental theory, syllable structure, metrical theory, interface of phonology and grammar. P/NP or letter grading.

165B. Syntax II. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisite: course 120B. To be taken in term following completion of course 120B or as soon as possible thereafter. Further study in syntax, selected current research papers in syntax, pragmatics, discourse, and sociolinguistics from perspective of contrastive study of Japanese and Korean. P/NP or letter grading.

168. Mathematical Structures in Language I. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisite: courses 120B, Program in Computing 10C (or Computer Science 32). Exposition of the techniques of formal computational ideas underling kinds of grammars used in theoretical linguistics and psycholinguistics, and some connections to applications in natural language processing. Topics include recursion, relations between probabilities and grammars, and parsing algorithms. P/NP or letter grading.

165A. Computational Linguistics I. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisite: course 185A, with emphasis on computational analysis of current tools and frameworks used in linguistic theory and their cognitive interpretations. P/NP or letter grading.

165B. Computational Linguistics II. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisite: course 185B. Further study in formal computational ideas used in theoretical linguistics and psycholinguistics, and some connections to natural language processing. Topics include recursion, relations between probabilities and grammars, and parsing algorithms. P/NP or letter grading.


185B. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: course 185A. Extension of material in course 185A, with emphasis on computational analysis of current tools and frameworks used in linguistic theory and their cognitive interpretations. P/NP or letter grading.


185B. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: course 185A. Extension of material in course 185A, with emphasis on computational analysis of current tools and frameworks used in linguistic theory and their cognitive interpretations. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate course. Exploration of topics in greater depth through assigned readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

185HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to undergraduate core course. Individual study with course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for credit for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

191A. Variable Topics Research Seminars: Linguistics. (4) Seminar, three hours. Requisite: course 1 or 20, Research seminar on selected topics. Reading, discussion, and development of culminating project. May be repeated for credit with topic change. P/NP or letter grading.

191B. Variable Topics Research Seminars: Linguistics. (2 or 4) Seminar, three hours. Research seminar on selected topics. Reading, discussion, and development of culminating project. May be repeated for credit with topic change. P/NP or letter grading.

192A-192B. Undergraduate Practicum in Linguistics. (4–2) Seminar, seven hours (course 192A) and six hours (course 192B). Limited to junior/senior majors. Training and supervised practicum for advanced undergraduate students to assist in linguistics courses. Students assist in preparation of materials and development of innovative projects. Participation of faculty members and teaching assistants. May not be applied toward course requirements for any Linguistics Department major. Individual contract required. Information about credit will be determined by Linguistics Department. P/NP grading.

194. Research Group Seminars: Laboratory Research in Linguistics. (1 to 2) Seminar, one hour; laboratory, one hour. Laboratory research in various kinds of relevant research methods, with application of results to specific problems. May be repeated for credit. P/NP grading.

195. Community or Corporate Internships in Linguistics. (2 to 4) Tutorial, to be arranged. Preparation: 3.0 grade-point average in major. Limited to junior/senior majors. Internship in supervised setting in community agency or business related to linguistics and/or applied linguistics. Students meet on regular basis with instructor and provide evidence of mastery of subject matter required. Additional supervision to be provided by internship site supervisor. Individual contract with supervising faculty member required. P/NP grading.

197. Individual Studies in Linguistics. (2 to 4) Tutorial, four hours. Requisite: course 185A. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

198A. Honors Research in Linguistics I. (4) Tutorial, to be arranged. Preparation: 3.0 grade-point average. Requisite or corequisite: course 165A (or 200A) or 165B (or 200B). Recommended: completion of both courses 165A and 165B (or 200A and 200B) before or during term in which course 198A is taken. Limited to juniors/seniors. Development of honors thesis or comprehensive research project on linguistic topic selected by student under direct supervision of faculty mentor. Consult professor in charge to enroll. May be repeated for credit. Individual contract required. In Progress grading (credit to be given only on completion of course 198B).

198B. Honors Research in Linguistics II. (2) Tutorial, to be arranged. Requisite: course 198A. Limited to juniors/seniors. Completion of honors thesis or comprehensive research project begun in course 198A under direct supervision of faculty mentor. Consult professor in charge to enroll. May be repeated for credit. Individual contract required. Letter grading.
### Graduate Courses

#### 200A. Phonological Theory I. (4) Lecture, four hours. Preparation: graduate linguistics student or grade of A in course 210A or equivalent course in phonology. Courses 200A and 201A form two-course survey of current research in phonological theory. Interaction of phonology with morphology and syntax, syllable structure, stress, S/U or letter grading.

#### 200B. Syntactic Theory I. (4) Lecture, four hours. Preparation: graduate linguistics student or grade of A in course 210B or equivalent course in syntax. In-depth introduction to selected topics in theory of constituent structure and syntax of predicates, arguments, and grammatical relations. Topics include level of representation, X-bar theory, case theory, thematic roles, component grammar, function-changing rules, head-complement relations. S/U or letter grading.

#### 200C. Semantic Theory I. (4) Lecture, four hours. Overview of current research in semantic and pragmatic theory. Topics include segmentalism (tone, tiers, segment structure), feature theory, underspecification, prosodic morphology. S/U (2-unit course) and S/U or letter (4-unit course) grading.

#### 201A. Phonological Theory II. (2 or 4) Lecture, four hours. Requisite: course 200A. Continuation of course 200A. Second course in two-course survey of current research in phonological theory. Topics include autosegmentalism (tone, tiers, segment structure), feature theory, underspecification, prosodic morphology. S/U (2-unit course) and S/U or letter (4-unit course) grading.

#### 201B. Syntactic Theory II. (2 or 4) Lecture, four hours. Requisite: course 200B. In-depth introduction to selected topics in theory of movement processes and topics selected from following areas: WH-movement and related rules, subjacency and other constraints on movement; ECP and related conditions on distribution of empty categories; resumptive pronoun constructions; parametric variation in movement constructions; LF WH-movement; filters; reconstruction; parasitic gaps; barriers theory; control theory; null subject parameter. S/U (2-unit course) and S/U or letter (4-unit course) grading.

#### 201C. Semantic Theory II. (2 or 4) Lecture, four hours. Requisite: course 200C. Survey of current approaches to model-theoretic semantics and its relation to current linguistic theory. Approaches include generalized categorial grammars, Montague grammar, Boolean-based systems, generalized quantifier theory, logical form. S/U (2-unit course) and S/U or letter (4-unit course) grading.


#### 203. Phonetic Theory. (4) Requisite: course 120A. Preliminaries to speech analysis. Functional anatomy of vocal organs; fundamental principles of acoustics and of acoustic theory of speech production; issues in perception of speech; nature and design of feature systems for phonetic and phonological analysis.

#### C204A. Experimental Phonetics. (5) Formerly numbered 204A. Lecture, four hours; discussion, one hour (when scheduled). Requisite: course 102 or 103. Survey of principal techniques of experimental phonetics. Use of laboratory equipment to investigate acoustic properties of speech sounds. Topics include perceptual study of speech sounds; computer-based speech processing and analysis. Concurrently scheduled with course C104. S/U or letter grading.

#### 204B. Speech Production. (4) Lecture, three hours; laboratory, one hour. Requisite: course 104 or 204A. Survey of topics in speech production research, especially in laboratory methods. Topics include physiology of vocal tract and models of speech production and articulatory/acoustic relations. Emphasis on use of laboratory methods such as aerodynamic transducers, electroglottography, static and electropalatography, electromyography, and imaging techniques. S/U or letter grading.

#### 204C. Speech Perception. (2 or 4) Lecture, four hours. Recommended requisite: course 104 (or 204A) or 111 (or 210A). Survey of topics in speech perception research. Topics include auditory physiology and psychophysics, categorical speech perception, and cross-linguistic speech perception. Emphasis on use of experimental methods such as lexical decision, gating, priming, eye tracking, phoneme monitoring, and word spotting. S/U or letter grading.


#### 207. Pragmatic Theory. (2 or 4) Lecture, four hours. Requisites: courses 200C, 201C. Introduction to formal pragmatic theory. Topics include speech act theory, presupposition, and conversational maxims; at-issue_at-issue distinction and other projective content; Gricean implicature, conversational implicature, and local implicature; and formal treatments of discourse, including game-theoretic pragmatics. S/U or letter grading.


#### 209A. Computational Linguistics I. (5) Lecture, four hours; laboratory, one hour. Overview of formal computational ideas underlying kinds of grammars used in theoretical linguistics and psycholinguistics. Themes include role of recursion, relationship between structure and interpretation (both PF and LF), relationship between grammars and probabilities, and relationship between derivations and parsing. S/U or letter grading.

#### 209B. Computational Linguistics II. (5) Lecture, four hours; laboratory, one hour. Requisite: course 209A. Extensions of basic language processing techniques to natural language processing. Recent models of syntactic, semantic, and discourse analysis, with particular attention to theories of linguistic sophistication and psychological plausibility. S/U or letter grading.

#### 209C. Computational Semantics. (4) Lecture, four hours. Preparation: basic knowledge of semantics. Requisite: course 185A or 209A. Study of algorithms to compute and reason with meanings of sentences and texts. Phenomena such as anaphor resolution, presupposition projection, and tracking time, objects, and spatial relations. S/U or letter grading.

#### 210A. Field Methods I. (4) Lecture, four hours. Preparation: grade of B or better in course 103 in or examination on practical phonetics. Requisites: courses 200A, 200B. Analysis of a language unknown to members of class from data elicited from a native speaker of the language. Term papers to be relatively full descriptive sketches of the language. May be repeated for credit with topic change. S/U or letter grading.

#### 210B. Field Methods II. (4) Lecture, four hours. Requisite: course 210A. Survey of techniques and problems with different languages are investigated in different years, different languages may be surveyed in different years. Course 210B may be taken by native speakers of the language. May be repeated for credit with topic change. S/U or letter grading.

#### C211. Intonation. (Formerly numbered 211.) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 102 or 119A or 120A or 120B. Recommended requisite: course C204A. Survey of intonational theory for English and other languages, with particular emphasis on phonological models of intonation. Students learn to transcribe intonational elements of a given language and to write them in the standard notation. Concurrently scheduled with course C111. S/U or letter grading.

#### 212. Learnability Theory. (4) Lecture, four hours. Survey of some of most significant results on capabilities of learners, given precise assumptions about their memory, time, and computational power, and precise assumptions about information provided by environment. S/U or letter grading.

#### 213A. Grammatical Development. (7) Requisites: courses 200A, 200B. Requisites: courses 130 or 233. Survey of theoretical perspectives and contemporary empirical research in development of syntax and other components of grammar, with particular emphasis on acquisition theory, linguistic theory, and issues of learnability.


#### 214. Survey of Current Syntactic Theories. (4) Lecture, four hours. Requisite: course 200B. Survey of several current syntactic theories, compared with one another and with theory discussed in course 201B, from point of view of theories' relative descriptive and explanatory power. S/U or letter grading.

#### 215. Syntactic Typology. (2 or 4) Lecture, four hours. Requisite: course 200B. Current results in word-order universals; genetic classification of world languages; cross-language properties of specific construction types, including relative clauses, passives, positive and negative coreference systems, agreement systems, deixis systems, and types of sentence complement; S/U or letter grading.

#### 216. Syntactic Theory III. (2 or 4) Lecture, four hours. Requisite: course 200B. Selected topics on syntactic theories of anaphora and quantification from the following areas: typology of binding categories (pro- nouns, adverbs, other elements); features and positions in binding theory; parametric variation in binding; quantifier movement; existential quantification and unselective binding; strong and weak crossover; superiority; scope interactions; complements. S/U (2-unit course) or letter (4-unit course) grading.

#### 217. Experimental Phonology. (4) Lecture, four hours. Requisite: course 200A. Survey of experimental work that bears on claims about speakers' knowledge of phonology, including theories of lexicon, relation between perception and phonology, and universal markedness relations. Letter grading.

#### 218. Mathematical Structures in Language II. (4) Lecture, four hours. In-depth study of generalized quantifier theory; selected topics from distinction feature theory, formal syntax, partial orders and lattices, formal language theory, variable binding operators. May be repeated for credit with consent of instructor. S/U or letter grading.

#### 219. Phonological Theory III. (2 or 4) Lecture, four hours. Requisite: course 201A. Current research and issues in phonological theory. Topics include structure of different representations, architecture of grammar, and explanations for phonological typology. S/U (2-unit course) or letter (4-unit course) grading.

#### 220. Linguistic Areas. (4) Requisites: courses 120A, and courses 120B or 127. Recommended: courses 135 or 200A, 165B or 200B. Analysis and classification of languages spoken in a particular area (e.g., Africa, the Balkans, South Asia, Southeast Asia, Australia, Ab-
original North America, Aboriginal South America, Far East, etc.) may be repeated for credit with topic change.

222. Semantic Theory III. (2 or 4) Lecture, four hours. Requisites: courses 201C, 202, 203. Introduction to the theory of meaning, focusing on defining research topics, selecting appropriate research design and measurements, designing student experiments, recording, analyzing, and interpreting data. S/U or letter grading.

224. Bilingualism and Second Language Acquisition. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 119A or 120A, 119B or 120B. Introduction to study of childhood bilingualism in adult and child second language of L2 and L1 acquisition, with focus on understanding nature of L2 grammar and grammatical processes underlying L2/bilingual acquisition. Discussion of neurolinguistic and social aspects of bilingualism. Concurrently scheduled with course C140. Graduate students expected to read more advanced literature, do in-class presentation, and submit graduate-level term paper. S/U or letter grading.

251A. Topics in Phonetics and Phonology. (4) Seminar, four hours. Requisite: course 200A. Course 201A, 203, or 204A may be required. Specialized topics in phonetics and phonology. Meetings with course 251B. May be repeated for credit. S/U or letter grading.

251B. Topics in Phonetics and Phonology. (2) Seminar, four hours. Requisite: course 200A. Course 201A, 203, or 204A may be required. Specialized topics in phonetics and phonology. Meetings with course 251A. May be repeated for credit. S/U grading.

252A. Topics in Syntax and Semantics. (4) Seminar, four hours. Requisite: course 200B. Course 201B, 201C, 214, 215, or 216 may be required. Specialized topics in syntax and semantics. Meetings with course 252B. May be repeated for credit. Letter grading.

252B. Topics in Syntax and Semantics. (2) Seminar, four hours. Enforced requisite: course 200B. Course 214, 215, or 216. Specialized topics in syntax and semantics. May not be applied toward MA degree requirements. Meetings with course 252A. May be repeated for credit. S/U grading.

253A. Topics in Language Variation. (4) Seminar, four hours. Requisite: course 210. Course 202 may be required. Specialized topics in language variation. Meetings with course 253B. May be repeated for credit. Letter grading.

253B. Topics in Language Variation. (2) Seminar, four hours. Requisite: course 210. Course 202 may be required. Specialized topics in language variation. May not be applied toward MA degree requirements. Meetings with course 253A. May be repeated for credit. S/U grading.

254A. Topics in Linguistics. (4) Seminar, four hours. Requisites: courses 200A, 200B. Course 201A, 201B, 201C, 202, 203, 204A, 205, 208, 209A, 209B, 212, 213A, 213C, 214, 215, 216, or 218 may be required. Individual seminars on topics such as child language, sociolinguistics, neurolinguistics, computational linguistics, psycholinguistics, etc. Meetings with course 254B. May be repeated for credit. Letter grading.

254B. Topics in Linguistics. (2) Seminar, four hours. Requisites: courses 200A, 200B. Course 201A, 201B, 201C, 202, 203, 204A, 205, 208, 209A, 209B, 212, 213A, 213C, 214, 215, 216, or 218 may be required. Individual seminars on topics such as child language, sociolinguistics, neurolinguistics, computational linguistics, psycholinguistics, etc. May not be applied toward MA degree requirements. Meetings with course 254A. May be repeated for credit. S/U grading.

260A-260B-260C. Seminars: Phonetics. (2 or 4 each) Seminar, three hours. Each course may be taken independently for credit. May not be applied toward MA or PhD degree requirements when taken for 2 units. May be repeated for credit. S/U grading.

261A-261B-261C. Seminars: Phonology. (2 or 4 each) Seminar, three hours. Each course may be taken independently for credit. May not be applied toward MA or PhD degree requirements when taken for 2 units. May be repeated for credit. S/U grading.

262A-262B-262C. Syntax Seminar. (2 or 4 each) Seminar, three hours. Each course may be taken independently for credit. May not be applied toward MA or PhD degree requirements when taken for 2 units. May be repeated for credit. S/U grading.

263. Seminar: Semantics. (2 or 4) Seminar, two hours. Graduate students and faculty present ongoing work; review recent research in field; collaborate on joint projects. S/U grading.

264A-264B-264C. Seminars: Psycholinguistics/Neurolinguistics. (2 or 4 each) Seminar, three hours. Special topics may include child language, neurolinguistics, psycholinguistics, sociolinguistics, etc. Each course may be taken independently for credit. May not be applied toward MA degree requirements when taken for 2 units. May be repeated for credit. S/U grading.

265A-265B-265C. American Indian Linguistics Seminars. (1 or 4 each) Seminar, two hours: fieldwork, four hours. Presentation of research on American Indian linguistics. Each course may be taken independently for credit. May not be applied toward MA or PhD degree requirements when taken for 1 unit. May be repeated for credit. S/U grading.

266. Seminar: Sociolinguistics. (2 or 4) Seminar, two hours. Graduate students, faculty, and visitors present ongoing work; review recent research in field; and prepare for conference. S/U grading.

275. Linguistics Colloquium. (4) Preparation: completion of MA requirements. Varied linguistic topics, generally presentations of new research by students, faculty, and visiting scholars. S/U grading.

276. Linguistics Colloquium. (No credit) Designed for graduate students. Same as course 275, but taken without credit by students not presenting a colloquium. S/U grading.


411A-411B. Research Orientation. (2–2) Designed for graduate students. Specialized orientation to research skills, including preparation of theses and written work for publication. Students must obtain permission from their faculty advisor. S/U grading.

422. Practicum: Phonetic Data Analysis. (2) Designed for graduate students. A practicum course in the analysis of phonetic data, such as sound spectrograms, oscillographic records, and computer output. May not be applicable toward MA or PhD degree requirements. S/U grading.

444. MA Thesis Preparation Seminar. (4) Seminar, two hours. Regular student presentations of MA thesis topics and progress, with discussion and criticism by other students and faculty. Presentations by faculty and guest speakers on topics relevant to professional development, such as abstract writing and conference presentations, preparing manuscripts for publication, curriculum vitae and personal websites, academic and non-academic careers in linguistics. May not be applied toward MA or PhD degree requirements. S/U grading.

495. College Teaching of Linguistics. (2) Seminar, to be arranged. Designed for graduate students. Required of all new teaching assistants. Seminars, workshops, and apprentice teaching. Selected topics, including curriculum development, various teaching strategies and their effects, teaching evaluation, and other topics on college teaching. Students receive unit credit toward full-time equivalence but not toward any degree requirements. S/U grading.

501. Cooperative Program. (2 or 4) Preparation: consent of UCLA graduate adviser and graduate dean, and host campus instructor, department chair, and
Swahili

Lower-Division Courses


9. Fiat Lux Freshman Seminars. (1 Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

98. Honors Seminars. (1 Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1 Tutorial, three hours. Limited to students in College Honors Program. Enforced prerequisite: course 89. Honors content noted on transcript. Letter grading.


189. Advanced Honors Seminars. (1 Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

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Sanjay Sood, PhD

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Avanidhar Subrahmanyan, PhD (Goldyne and Irwin Hearsh Professor of Money and Banking)

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Siew Hong Teoh, MBA, PhD (Lee and Seymour Graff Endowed Professor)

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Eric G. Flamholtz, PhD

Arthur M. Geoffrion, PhD

Robert L. Geske, PhD

Mark S. Grinblatt, PhD (Japan Alumni Professor Emeritus of International Finance)

Dominique M. Hanssens, PhD (Bud Knapp Marketing Professor Emeritus)

John S. Hughes, PhD (Ernst & Young Professor Emeritus of Accounting)

Sanford M. Jacoby, PhD (Howard Noble Professor Emeritus of Management)
Management / 607

Undergraduate Minors

Accounting Minor

The Accounting minor provides students with a comprehensive accounting background.

Admission

To enter the minor, students must (1) have a minimum cumulative UCLA grade-point average of 3.0, (2) complete all required pre-admission courses with a minimum grade-point average of 3.0, and (3) receive grades of B or better in Management 1A and 1B. Repetition of more than one pre-admission course or of any pre-admission course more than once results in automatic denial of admission to the minor. Satisfying these requirements does not guarantee admission to the program, as only a limited number of students are admitted each year.

Applications are accepted in fall, winter, and spring quarters. Nontransfer students must apply subsequent to completing 90 units. Transfer students must apply after completing two academic quarters (excluding summer sessions) at UCLA. Decisions are made by the Anderson School Accounting Area.
Fully Employed Master of Business Administration

Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Global Executive Master of Business Administration for Asia Pacific
The Anderson Graduate School of Management offers a dual degree program with the National University of Singapore Business School.

Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Management MS, CPhil, PhD

Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Entrepreneurship Minor
See the Entrepreneurship section for a description of the minor.

Graduate Majors

Business Analytics MS

Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Executive Master of Business Administration

Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Master of Business Administration

Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Concurrent Degree Programs
Concurrent degree programs allow students to reduce the number of courses required for two degrees, since some courses may apply to both degrees.

- Master of Business Administration/Computer Science MS
- Master of Business Administration/Doctor of Dental Surgery
- Master of Business Administration/Doctor of Medicine
- Master of Business Administration/Juris Doctor
- Master of Business Administration/Latin American Studies MA
- Master of Business Administration/Master of Library and Information Science
- Master of Business Administration/Master of Public Health
- Master of Business Administration/Master of Public Policy
- Master of Business Administration/Master of Science in Nursing
- Master of Business Administration/Master of Urban and Regional Planning

Master of Financial Engineering

Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Management Lower-Division Courses

1A-1B. Principles of Accounting. (4–4) Lecture, three hours; discussion, one hour. Not open to freshmen. P/NP or letter grading. 1A. Introduction to financial accounting principles, including preparation and analysis of financial transactions and financial statements. Valuation and recording of asset-related transactions, including cash, receivables, marketable securities, inventories, and long-lived assets. Current liabilities. 1B. Requisite: course 1A. Completion of balance sheet with emphasis on debt and equity, including in-depth introduction to time value of money concepts. Introduction to partnership and individual income tax accounting.

19. Fiat Lux Freshman Seminars. (1 Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

88. Lower-Division Seminar: Special Topics in Management. (1 to 4) Seminar, three hours; outside study, nine hours. Requisite: satisfaction of Entry-Level Writing requirement. Variable topics seminar that examines specific issues or problems and ways that professionals in management approach study of them. Students define, prepare, and present their own research projects with guidance of professional school faculty member. Letter grading.

89. Honors Seminars. (1 Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1 Tutorial, three hours. Limited to students in College Honors and departmental honors programs. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor.
Students must be in good academic standing and enrolled in at least one of the following courses:

108. Business Law. (4) Lecture, three hours. Students must be in good academic standing and enrolled in this course. Study of business law, contracts, agency, partnerships, and other laws of a business environment. P/NP or letter grading.


120A. Intermediate Financial Accounting I. (5) Lecture, four hours. Study of financial accounting and control; job costing and process costing; accounting for manufacturing overhead; cost budgeting; cost reports; joint-product costing; distribution cost; standard costs; differential cost analysis; profit-volume relationships and break-even analysis. P/NP or letter grading.


121. Ethical Leadership in Accounting. (4) Lecture, seven and one-half hours. Study of ethical considerations in business decisions involving individuals, corporations, society, and international business. Analysis of cases for presentation and discussion. What is ethical dilemma posed? What is range of possible decisions and band of ethical choices supporting them? Offered in summer only. Letter grading.

122. Management Accounting. (4) Lecture, three hours. Requisites: course 1B, one statistics course. Nature, objectives, and procedures of cost accounting and control; budgeting and cost accounting; cost accumulation; cost reporting; cost-volume-profit relationships; and break-even analysis. P/NP or letter grading.

123. Auditing. (4) Lecture, three hours. Requisites: course 120B. Comprehensive study of procedures used in verification of financial statements and related information. Topics include control, legal, and other professional issues. Auditing of a complete set of financial statements. P/NP or letter grading.


127A. Tax Principles and Policy. (4) Lecture, three hours. Requisite: course 1B. Study of fundamental income tax principles and policy as they are applied by individuals and other entities in analyzing business, investment, employment, and personal decisions. Special emphasis on role of tax rules in capital transactions and decision making. P/NP or letter grading.

127B. Corporate and Partnership Taxation. (4) Lecture, three hours. Requisite: course 1B. Recommended: course 127A. Study of tax issues arising in formations and operations of corporations and partnerships. Special emphasis on closely held enterprises, including S corporations. P/NP or letter grading.

127C. International Taxation. (4) Lecture, three hours. Requisite: course 127A or permission of instructor. Study of two principle areas of international taxation from U.S. regulatory perspective: taxation of American citizens and companies conducting business in international arena (outbound transactions) and taxation of foreign nationals and companies who invest or conduct business in the U.S. (inbound transactions). P/NP or letter grading.

128. Special Topics in Accounting. (4) Lecture, three hours. Requisite: course 1B. Selection of topics in public accounting, such as audit and fraud examination, mergers and acquisitions, public-company status and going-public process, role of partner, serving entrepreneurial clients, and fund accounting. Discussion of case study of current interest in accounting profession. Business plan preparation. P/NP or letter grading.

129. Principles of Managerial Finance. (4) Lecture, four hours. Requisites: course 1B, one statistics course. Not open to students with credit for Econ 106F. Study of financial decision making by business firms, with emphasis on applications of economic and accounting principles in financial analysis, planning, and control. Extensive use of problems and cases to illustrate analytical techniques employed in decision making. P/NP or letter grading.


142A. Analytics in Accounting I. (4) Lecture, three hours. Requisite: course 142A. Preparation: intermediate Excel user. Not open to first-years. Topics include data cleaning and analyzing data, and advanced financial analysis, to evaluate accounting data. All applications are related to accounting and finance. Includes developing analytics mindset, data scrubbing and preparation, and data quality. Emphasis on graphical and written techniques to communicate results. Letter grading.

142B. Analytics in Accounting II. (4) Lecture, three hours. Requisite: course 142A. Preparation: intermediate Excel user. Not open to first-years. Topics include data cleaning and analyzing data, and advanced financial analysis, to evaluate accounting data. All applications are related to accounting and finance. Includes developing analytics mindset, data scrubbing and preparation, and data quality. Emphasis on graphical and written techniques to communicate results. Letter grading.

142C. Analytics in Accounting III. (4) Lecture, three hours. Requisite: course 142A. Preparation: intermediate Excel user. Not open to first-years. Topics include data cleaning and analyzing data, and advanced financial analysis, to evaluate accounting data. All applications are related to accounting and finance. Includes developing analytics mindset, data scrubbing and preparation, and data quality. Emphasis on graphical and written techniques to communicate results. Letter grading.

159. Foundations of Business and Entrepreneurship. (4) Lecture, three hours. Introductory overview of core areas of business and entrepreneurship including accounting, finance, marketing, operations, organization behavior, and entrepreneurship concepts in context of large existing organizations, small businesses, and new entrepreneurial ventures. Students gain solid foundational knowledge of components of business as well as how organizations are managed in increasingly competitive and global economy. Letter grading.

160. Entrepreneurship and Venture Initiation. (4) Lecture, three hours; off-campus. Introduction to key concepts of entrepreneurship, including new product development, finance, business plan development, and technology commercialization. Basic topics include character traits required for entrepreneurship. Terminology used by lawyers, accountants, venture capitalists, and other investors who form and financing new companies are to be developed. Includes start-ups, spin-off, and acquisition of existing company (or its assets). Assessment of feasibility of business concept and communication of concept to potential investors, employees, and business partners. Discussion of technology feasibility, intellectual property, and licensing. Letter grading.

161. Business Plan Development. (4) Lecture, three hours. Enforced requisite: course 160. Fundamentals of developing effective business plans, both in presentation and written form. Basic principles of designing and articulating plans for sales, marketing, product or service, operations, financials, management, and strategic considerations of new venture. How to develop well-written investment-quality business plans and business plan presentations, understand various analytical processes to produce such plans, improve student plans, oral presentation skills, and formally present their business plans to audience of angel and venture capital investors. Letter grading.

162. Entrepreneurship and Technology Commercialization. (4) Lecture, three hours. Designed for juniors/seniors. Introduction to transformation of new knowledge and inventions into viable commercial products and services. Focus on particular stage of technology being developed at major research universities like UCLA. Initial emphasis on assessment and protection of intellectual property and early evaluation of technology and determining potential for commercialization. How intellectual property in its various forms is protected and how rights to these assets are negotiated by parties involved. Examination of nature of contracts and negotiation between university technology transfer offices, researchers, technical experts, and early investors in commercialization that might lead to patent, licenses, or new business development. Letter grading.

163. Entrepreneurship and New Product Development. (4) Lecture, three hours. Designed for juniors/seniors. Introduction to new product innovation and management. Students assume role of product manager, from identifying, developing, and commercializing new products through cases, businesses currently in news, team project, and readings to develop critical thinking, decision-making skills, and creativity in launch of successful new product (team project). Letter grading.

164. Entrepreneurial Finance and Accounting. (4) Lecture, three hours. Designed for juniors/seniors. Introduction to fundamental concepts of financial management of early-stage companies, with particular emphasis on capital formation of new ventures. Relationships between entrepreneurs and investors and discussion of different goals of founders and investors, including nature of negotiation and relationship between parties over time. Letter grading.


167. Social Entrepreneurship. (4) Lecture, three hours. Designed for juniors/seniors. Examination of fundamental social challenges and opportunities of developing and managing enterprises with social missions. Use of framework to develop strategic implementation plan that incorporates external analysis, organizational assessment, strategy development, and actionable steps and draws on expertise and experience of faculty members and alumni as well as experts in
fields of social entrepreneurship, nonprofit management, and strategic philanthropy who present select topics of interest. Letter grading.

185. Personal Financial Health: Theory and Practice. (4) Lecture, four hours; fieldwork, eight hours. Enrollment by instructor consent. Capstone for undergraduate minor in Entrepreneurship. Application of critical thinking, research skills, and education to one of a follower and then to run a new business. Specific topics covered include budgeting, time value of money, installment purchases, protection of assets, principles of investing, retirement and estate planning, psychological aspects of decision making, behavior, and credit. Topics from behavioral finance include suboptimal spending, mistakes investors make, and money and happiness. Letter grading.

186. Entrepreneurial Leadership and Practical Experience. (4) Lecture, three hours; fieldwork, eight hours. Enrollment by instructor consent. Capstone for under

187. Real Estate Finance and Investments. (4) Lecture, three hours. Exploration of fundamentals of residential and commercial real estate finance, investment, and development. Study of qualitative concepts and quantitative tools necessary to develop real estate decision-making skills. Analysis of variety of case studies of real estate investments, and development proj

188A. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin prepara


188C. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced requisite: course 188B. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE 88S course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth than provided in regular seminars, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible stud

190. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors and departmental honors programs. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors contract requires faculty advisor approval. May be repeated for credit. Individual contract required. P/NP or letter grading.

194. Anderson School of Management Research Group Seminar. (2) Seminar, two hours. Study and analysis of current topics in management and business. Discussion of current research and literature in research specialty of faculty instructor. P/NP grading.

195. Community or Corporate Internships in Management. (2 to 4) Tutorial, to be arranged. Limited to juniors/seniors. Internship in supervised setting in community agency or business. Students meet on regular basis with instructor to monitor and discuss periodic reports of their experience. May be repeated for maximum of 8 units. Individual contract with supervising faculty member required. P/NP or letter grading.

199. Directed Research. (2 to 6) Tutorial, to be arranged. Limited to juniors/senors. Supervised individual research or investigation of selected research topic under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

201B. Econometrics and Business Forecasting. (4) Lecture, three hours. Development of standard topics in applied econometric modeling. Emphasis on techniques of model building and choice, common behavioral biases of managers and consumers, and corrective tools and procedures, drawing heavily on disciplines of psychology and behavioral economics. Topics include decision structuring, chance processes, forecasting, confidence, likelihood judgment, risk perception and risk-taking, decision under uncertainty, multiattribute choice, framing and mental accounting, intertemporal choice, allocation decisions, organizational decision making, choice architecture, happiness, and well-being. S/U or letter grading.

204A-204B. Managing Complex Business Deals. (4 or 6) Lecture, three hours. Prepar

209A-209B. Managing Complex Business Deals. (4 or 6) Lecture, three hours. Preparation: familiarity with basic vocabulary and concepts, including basic principles of accounting and valuation. Course 209A is enforced requisite to 209B. Advanced course in business transactions that have first-order effects on management practices and business opportunities around world. Global managers need to develop keen sense of these evolutions in order to lead successful businesses that adapt to and take advantage of global trends. Study improves student's preparedness of these trends to become better managers. Letter grading.

209. Managing Complex Business Deals. (4 or 6) Lecture, three hours. Preparation: familiarity with basic vocabulary and concepts, including basic principles of accounting and valuation. Advanced course in business organization. Examination of structure of business transactions and allocation of control, risk, and returns. Topics include venture capital investments, debt and loan agreements, empirical model, special problems in application, and international distribution and marketing agreements (including franchising), motion picture production/finance/distribution agreements, and joint ventures. Assigned reading and focus on documents that incorporate terms of business transactions of deals. Concurrently scheduled with Law 239. S/U or letter grading.

210A. Business Forecasting: Turning Numbers into Knowledge. (4) Discussion, three hours. Preparation: familiarity with linear regression. Examination of one approach to analytical thinking—forcing numerical and textual data into carefully formulated alternative models. Data studied include macroeconomic vari

211. Behavioral Economics. (4) Lecture, three hours. Study of the psychological foundations of economic behavior and thinking. Topics include decision making, framing and mental accounting, intertemporal choice, allocation decisions, organizational decision making, choice architecture, happiness, and well-being. S/U or letter grading.

214. Managerial Decision Making. (4) Lecture, three hours. Preparation: familiarity with basic vocabulary and concepts, including basic principles of accounting and valuation. Course 209A is enforced requisite to 209B. Advanced course in business organization. Examination of structure of business transactions and allocation of control, risk, and returns. Topics include venture capital investments, debt and loan agreements, empirical model, special problems in application, and international distribution and marketing agreements (including franchising), motion picture production/finance/distribution agreements, and joint ventures. Assigned reading and focus on documents that incorporate terms of business transactions of deals. Concurrently scheduled with Law 239. In Progress (209A) and S/U or letter (209B) grading.

215A. Negotiations Analysis. (4) Lecture, three hours. Preparation: negotiation exercises and development of students' negotiation skills and experience. Use of economic concepts and simple analyses in exercise debriefs to gain insight and to develop framework applicable to business negotiations. S/U or letter grading.


216. Tools and Analysis for Business Strategy. (4) Lecture, three hours. Goal is for students to become more comfortable with design, execution, and interpretation of data analysis that can meaningfully inform business strategy formulation. Conceptual framework is firmly rooted in learning by doing. Use of variety of real-world examples to gain practice with quantitative methods.
methods that can be deployed in business settings to analyze underlying predictors and causes of firm success. Letter grading.

220. Corporate Financial Reporting. (4) Lecture, three hours. In-depth study of significant corporate financial reporting issues to enhance understanding of financial statements and student ability to interpret and use information contained in these disclosures. Emphasis on economic substance of transactions. S/U or letter grading.

222. Corporate Decision Making and Incentives. (4) Lecture, three hours. Requisites: course 403. Use of basic microeconomics to answer what information is needed to make managerial decisions, what incentives are needed to motivate managers, and how information should be recorded to facilitate both, essentials for careers in consulting, private equity, and general management. Letter grading.

223. Choice Architecture. (4) Lecture, three hours. Emphasis on economic principles that can be deployed in business settings to help individuals make better decisions. Historical development of behavioral insights in microeconomics and psychology. Selected topics in finance theory, empirical studies, and financial policy. May be repeated for credit with instructor approval. S/U or letter grading.

226. Special Advanced Topics in Accounting. (4) Lecture, three hours. Requisites: courses 230 (or 430), 403, 408. Designed for second-year graduate students. Exploration of operating issues involved in managing entrepreneurial enterprises. Integrative course, building on methodological, principles, and concepts provided in requisite functional and strategic core courses. Use of extensive readings and case studies to develop skills and philosophical basis for applying managerial concepts to entrepreneurial operating settings. S/U or letter grading.

230. Business Law for Managers and Entrepreneurs. (4) Lecture, three hours. Introduction to the legal environment that includes contract law, litigation process and alternatives, intellectual property law, business formation, corporate law, employment law, collateralized lending, and bankruptcy reorganizations. How to deal with potential legal issues before they become serious problems. S/U or letter grading.

M225. Law and Management of Nonprofit Organizations. (4) (Same as Public Policy M229.) Lecture, three hours. Introduction to important legal, financial, and management issues confronting nonprofit organizations. Topics include how to start nonprofit tax-exempt organizations, qualifying and maintaining tax-exempt status under IRC Code Section 501(c)(3), corporate governance, political and legislative activity restrictions. S/U or letter grading.

231E. Managing Finance and Financing Emerging Enterprises. (4) Lecture, three hours. Requisites: courses 230 (or 430), 403, 408. Process by which corporate control transactions take place; role of market for corporate control in leading to economic restructuring and shifts in resource allocation by corporations. Emphasis on understanding the market for control and reactions to control transactions and to defensive measures by management. Focus on interaction of strategic planning, firm value maximization, and investment decisions in life cycle of growth of firms. S/U or letter grading.

231E. Managing Finance and Financing Emerging Enterprises. (4) Lecture, three hours. Requisites: courses 230 (or 430), 403, 408. Selected topics in finance theory, empirical studies, and financial policy. May be repeated for credit with instructor approval. S/U or letter grading.

231E. Managing Finance and Financing Emerging Enterprises. (4) Lecture, three hours. Requisites: courses 230 (or 430), 403, 408. Designed for second-year graduate students. Exploration of operating issues involved in managing entrepreneurial enterprises. Integrative course, building on methodological, principles, and concepts provided in requisite functional and strategic core courses. Use of extensive readings and case studies to develop skills and philosophical basis for applying managerial concepts to entrepreneurial operating settings. S/U or letter grading.

232A. Investment Management. (4) Lecture, three hours. Requisites: courses 230 (or 430), 403, 408. Topics include application of portfolio theory to investment decisions, introduction to fixed-income markets; institutional arrangements in primary and secondary markets; description and analysis of various types of fixed-income instruments; valuation; fixed-income portfolio management; use of derivative instruments and dynamic investment strategies; asset securitization. S/U or letter grading.

232B. Fixed-Income Markets. (4) Lecture, three hours. Preparation: demonstrable training in statistics. Requisites: courses 230 (or 430), 403, 408. Topics include application of portfolio theory to investment decisions, introduction to fixed-income markets; institutional arrangements in primary and secondary markets; description and analysis of various types of fixed-income instruments; valuation; fixed-income portfolio management; use of derivative instruments and dynamic investment strategies; asset securitization. S/U or letter grading.

232E. Market and Credit Risk Management. (4) Lecture, three hours. Requisites: courses 230 (or 430), 403, 408. Topics include application of portfolio theory to investment decisions, introduction to fixed-income markets; institutional arrangements in primary and secondary markets; description and analysis of various types of fixed-income instruments; valuation; fixed-income portfolio management; use of derivative instruments and dynamic investment strategies; asset securitization. S/U or letter grading.

232E. Market and Credit Risk Management. (4) Lecture, three hours. Requisites: courses 230 (or 430), 403, 408. Topics include application of portfolio theory to investment decisions, introduction to fixed-income markets; institutional arrangements in primary and secondary markets; description and analysis of various types of fixed-income instruments; valuation; fixed-income portfolio management; use of derivative instruments and dynamic investment strategies; asset securitization. S/U or letter grading.

233A. International Financial Markets. (4) Lecture, three hours. Requisites: courses 230 (or 430), 403, 408. Topics include application of portfolio theory to investment decisions, introduction to fixed-income markets; institutional arrangements in primary and secondary markets; description and analysis of various types of fixed-income instruments; valuation; fixed-income portfolio management; use of derivative instruments and dynamic investment strategies; asset securitization. S/U or letter grading.

234A. International Financial Markets. (4) Lecture, three hours. Requisites: courses 230 (or 430), 403, 408. Topics include application of portfolio theory to investment decisions, introduction to fixed-income markets; institutional arrangements in primary and secondary markets; description and analysis of various types of fixed-income instruments; valuation; fixed-income portfolio management; use of derivative instruments and dynamic investment strategies; asset securitization. S/U or letter grading.

234A. International Financial Markets. (4) Lecture, three hours. Requisites: courses 230 (or 430), 403, 408. Topics include application of portfolio theory to investment decisions, introduction to fixed-income markets; institutional arrangements in primary and secondary markets; description and analysis of various types of fixed-income instruments; valuation; fixed-income portfolio management; use of derivative instruments and dynamic investment strategies; asset securitization. S/U or letter grading.

235. Venture Capital and Private Equity. (4) Lecture, three hours. Requisites: course 408. Use of cases to study entrepreneurial finance and venture capital. Analysis of issues faced by entrepreneurs who are setting up new firms, as well as decisions of private equity partnership managers and investors. How transactions are structured and why investors and entrepreneurs choose certain contractual arrangements. Development of understanding for institutional context of private equity finance. Time also devoted to leveraged buyouts. S/U or letter grading.

238. Special Topics in Finance. (4) Lecture, three hours. Requisites: courses 230 (or 430), 403, 408. Topics include application of portfolio theory to investment decisions, introduction to fixed-income markets; institutional arrangements in primary and secondary markets; description and analysis of various types of fixed-income instruments; valuation; fixed-income portfolio management; use of derivative instruments and dynamic investment strategies; asset securitization. S/U or letter grading.

240F. Global Supply Chain Management. (4) Lecture, three hours. Requisites: course 410. Business environment today is characterized by globalization, intense competition, rapid technological change, and shorter product life cycles. Firms can no longer afford to operate in isolation. In many industries competition has moved from firm level to supply chain level. Provides understanding of strategic, tactical, and operational issues involved in supply chain management, with generous attention to emerging digital economy. S/U or letter grading.


241A. Technology Management. (4) Lecture, three hours. Requisites: courses 410, 411. Management of high-technology firm, including acquisition, creation, and utilization of technology and knowledge assets. Research and product development, product and process technologies, technology regimes, high-technology markets, competition, and technology strategy. Examples include nanotechnology, advanced transportation systems, telecommunications, e-business, medical devices, nanotechnology, advanced transportation systems, and electronics. S/U or letter grading.

246A. Business and Environment. (4) Lecture, three hours. Requisites: course 410. Introduction to environmental issues that impact business decisions, including environmental issues interact with main functional areas of business: finance, marketing, strategy, operations, accounting. Basic introduction to background of environmental issues, with focus primarily on business aspects. Specific topics vary from year to year, but course details what every manager should know about environmental issues in business. S/U or letter grading.

M247. Intellectual Property for Technology Entrepreneurs and Managers. (2) (Same as Electrical and Computer Engineering M293.) Seminar, two hours; outside study, four hours. Introduction to intellectual property (IP) in context of technology products and markets. Topics include best practices to put in place before product development starts, how to develop high-value patent portfolios, patent licensing, offering IP as a competitive weapon, and how to defend IP. Topics include selected topics from open source software, trademarks, managing copyright in increasingly complex content ecosystems, and adopting IP strategies to globalized marketplaces. Includes case studies inspired by complex IP questions facing technology companies today. S/U or letter grading.

250D. Patterns of Problem Solving. (4) Lecture, three hours. Acquisition of strategies that enhance adaptive problem solving and real-time planning, based on findings from brain studies and cognitive research. Design of
tools to respond to emergent uncertainties and to address situations where intense pressures of time and cost are present. Letter grading.

252. Persuasion and Influence. (4) Lecture, three hours. Required course; course 409. Designed for individuals interested in improving their ability to persuade and influence others. Consideration of number of well-studied persuasion and influence strategies that result in greater buy-in for one’s ideas, initiates, proposals, products, and requests. Letter grading.

254. Incentives and Motivation in Organizations. (4) Lecture, three hours. Course 254 is open to MBA, EMBA, and FEMBA students. Focus on strategic management of employee motivation. Development of theories and tools that help students to excel in communicating their vision, inspiring and gaining commitment from stakeholders, and impressing interviewers and investors. Course materials are grounded in empirical research. Skills and techniques learned are broadly generalizable. Experiential exercises to enhance students’ abilities in oral and written communications. Letter grading.

259. Performance Management. (2) Lecture, three hours. Focus on understanding how to use performance reporting and communication tools and skills that can be applied to reward systems for different types of organizations and for different types of employees. Analysis of issues and actions with experts in human resource management and compensation practices to develop skills needed to design and implement optimal reward systems for organizations. S/U or letter grading.

265. Leadership and Ethics. (4) Lecture, three hours. Series of real-life business situations that pose complex problems of leadership and ethics, so students develop better understanding of how they can successfully address business situations that define their leadership and ethical positions. Letter grading.

269. Performance Management. (2) Lecture, three hours. Focus on understanding how to use performance reporting and communication tools and skills that can be applied to reward systems for different types of organizations and for different types of employees. Analysis of issues and actions with experts in human resource management and compensation practices to develop skills needed to design and implement optimal reward systems for organizations. S/U or letter grading.


261B. Global Marketing Management. (4) Lecture, three hours. Required course; 411. Analysis of opportunities, distinctive characteristics, and emerging trends in foreign markets, including exploration of alternative methods and strategies for entering foreign markets; organizational planning and control; impact of social, cultural, economic, and political differences; and problems of adapting American marketing concepts and methods. Letter grading.

262. Price Policies. (4) Lecture, three hours. Required course; 411. Consideration of environment of pricing decision—costs, customer, channels, competition, and cost-benefit analysis. Methods and tools required to develop pricing policies that assure major returns. May be repeated for credit. S/U or letter grading.

270C. Web Business. (4) Lecture, three hours. Doing business on Web, Web infrastructure and ecology, Web business models and strategies, Web business development, operation, and marketing. New frontiers, such as Web services, social networking, and semantic Web. S/U or letter grading.


271A. Medtech Innovation I: Prototyping and New Venture Development. (Same as Bioengineering M233B ) Lecture, three hours; outside study, nine hours. Required course; 411. Study of graduate and professional students in engineering, dentistry, design, law, management, and medicine. Focus on understanding how to identify unmet clinical needs, properly filtering through these needs using various acceptance criteria, and selecting promising needs for which potential medtech solutions are explored. Students work in groups to expedite traditional research and development processes to invent and implement new med-tech devices that increase quality of clinical care and result in improved patient outcomes in hospital system. Introduction to intellectual property basics and various medtech business models. Letter grading.

271B. Medtech Innovation II: Prototyping and New Venture Development. (Same as Bioengineering M233B ) Lecture, three hours; outside study, nine hours. Required course; 411. Study of graduate and professional students in engineering, dentistry, design, law, management, and medicine. Development of medtech solutions for unmet clinical needs that are not clearly identified in course M271A. Letter grading.


273. Current Topics in Entertainment, Media, and Sports. (2) Seminar, two hours. Designed for graduate students. Examination in depth of current issues in entertainment, media, and sports. Topics vary. May be repeated for credit. S/U or letter grading.

275. Current Topics in Emerging Technologies and Markets. (2) Seminar, two hours. Designed for graduate students. Examination in depth of current issues in emerging technologies and related market developments. Topics vary. May be repeated for credit. S/U or letter grading.

277A-277B. Real Estate Finance Law. (1 to 8) (Same as Law M209) Lecture, three hours. Concentrated study of real estate financing law by focusing on fundamentals from both national and California perspectives. Topics include California deed of trust, installment land contracts and other mortgage substitutes, assignments of rents, receivables, prepayment, foreclosure, priorities, California antideficiency legislation, impact of borrower bankruptcy on mortgage lenders, construction lending, future advances lending, and secondary market. Concurrently scheduled with Law 209. In Progress (277A) and S/U or letter (277B) grading.


278B. Cases in Real Estate Investments. (4) Lecture, three hours. Required courses: 408, 430. Development of understanding of principal issues involved in real estate investment and finance. Topics include real estate financial analysis and valuation in variety of contexts (single and multifamily residential, commercial/industrial, shopping center, and hotel properties), real estate taxation, real estate development process, securitization, REITs, and leasing and workout of troubled properties. S/U or letter grading.

279A. Entrepreneurial Real Estate Development. (4) Lecture, three hours. Required courses: 278A (or 278B), 408, 430. Introduction to various aspects of real estate development from perspectives of entre-

293C. Ethical Considerations in Business. (4) Lecture, three hours. Examination of ethical considerations in business decisions involving the individual, corporation, society, and international business. Analysis of cases for classroom presentation and discussion. S/U or letter grading.

294. Law and Economics Workshop. (2 or 3) Seminar, two hours. Requisite: course 405 or Economics 201A. Knowledge of empirical methods and basic calculation required. Interdisciplinary speaker series on legal topics and related empirical research in economics. Topics include contracts, torts, intellectual property, and business law. Students write grade-reaction papers. May be repeated for credit. Concurrently scheduled with Economics 206 and Law 648. S/U or letter grading.

295A. Entrepreneurship and Venture Initiation. (4) Exploration in entrepreneurship particularly concerned with the development of new product or process developments, and effective new venture management in a corporate context. S/U or letter grading.


295C. Corporate Entrepreneurship. (4) Inquiry into nature of entrepreneurship and effective implementation of entrepreneurial strategies in large industrial enterprises. Emphasis primarily on managerial effects aimed at identification, development, and exploitation of technical and organizational innovations, management of new product or process developments, and effective new venture management in a corporate context.


295F. Social Entrepreneurship. (4) Lecture, three hours. Exposes future change leaders to diverse business models for social impact and to fundamental opportunities and challenges of scaling, managing, and scaling enterprises with social mission. Through lectures, readings, case studies, speakers and research project, exploration of competitive advantages and barriers, and different approaches to creating social impact across sectors—private/for profit, public, and nonprofit. Introduction of frameworks for understanding and analyzing problems facing society and cultivation of critical thinking skills to identify diverse ways to address those problems through sustainable programs and enterprises. Letter grading.

296. Social Impact Consulting. (2) Lecture, three hours. Builds skills and competencies of students interested in field of social impact consulting. Through lectures, readings, videos, speakers, and consulting project with social impact organization, students learn and then apply key consulting skills—both consulting-focused and client management, and nonprofit-focused, such as governance and strategy, impact measurement, and sources of funding. Readings and discussion expose students to best practices in the field and provide the chance to work on consulting projects.


297C. International Business Law. (4) Requisite: courses 205A, 296A. Legal environments in which international business operates, including business relationships and organizations; antitrust, taxation, transfer of capital, and technology regulations; patents, trademark, and copyright safeguards; arbitration of international disputes; origins of foreign investments; international business and government relations.

297D. International Business Negotiations. (4) Requisite: course 296A. Exploration of international business negotiations of multinational enterprises with governmental agencies and foreign-based firms on a wide range of issues, such as establishment/dissolution of joint ventures, extent of foreign ownership/management control, tax conditions for technology transfer, investment incentives.

297E. Business and Economics in Emerging Markets. (4) Lecture, three hours. Requisite: course 205A or equivalent. Analysis of key aspects of business environment, such as economic, demographic, and sociocultural conditions in developing countries as they affect the business environment. Process of economic growth, market-oriented reforms, and creation of domestic capital markets. Inflation and stabilization programs, identification of business risks and opportunities, as well as tools needed to manage firms under these conditions. S/U or letter grading.

298D. Special Topics in Management. (4) Lecture, three hours. Designed for graduate students. In-depth examination of problems or issues of current concern in management, with numerous topics offered each year. May be repeated for credit. Letter grading.

298E. Special Topics in Management. (2) Lecture, ninety minutes. Designed for graduate students. In-depth examination of problems or issues of current concern in management, with numerous topics offered each year. May be repeated for credit. Letter grading.

298F. Special Topics in Management. (1) Lecture, one hour. Designed for graduate students. In-depth examination of problems or issues of current concern in management, with numerous topics offered each year. May be repeated for credit. S/U grading.

298G. Special Topics in Management. (4) Lecture, three hours. Designed for graduate students. In-depth examination of problems or issues of current concern in management, with numerous topics offered each year. May be repeated for credit. S/U grading.

298H. Special Topics in Management. (2) Lecture, ninety minutes. Designed for graduate students. In-depth examination of problems or issues of current concern in management, with numerous topics offered each year. May be repeated for credit. S/U grading.

298I. Special Topics in Management. (1) Lecture, one hour. Designed for graduate students. In-depth examination of problems or issues of current concern in management, with numerous topics offered each year. May be repeated for credit. S/U grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

406. Global Macroeconomy. (4) Lecture, three hours. Requisites: courses 402, 403, 405. Provides analytical framework required for understanding ways changing macroeconomic conditions in world economy affect economic growth, inflation, exchange rates, unemployment, and trade account. Provides skills to
enable students to assess critically how developments in world economy affect particular industry environments. Letter grading.

407. Business Analytics with Spreadsheets. (4) Lecture, three hours, Requisite course 402. Introduction to uses of analytical methods for making strategic, tactical, and operational decisions arising from accounting, finance, marketing, and production, with focus on problem solving; terminology, problem definition, spreadsheet model formulation, alternatives evaluation. Letter grading.

422. Analysis and Communications. (4) Discussion, three hours. Designed for graduate students. Study and practice of written and oral management communications, with focus on students' written communications and oral presentations.

424. Strategic Business Presenting. (2) Lecture, one hour; fieldwork, one hour. Four-term course. Faculty-guided portfolio-management implementation. Back testing of investment strategy. Visits to portfolio management firms to gain expert guidance. In Progress grading (credit to be given only on completion of courses 457C, 457D).

457B. Fieldwork in Investment Management. (2) Seminar, two hours; fieldwork, one hour; Four-term course. Faculty-guided portfolio-management implementation. Back testing of investment strategy. Visits to portfolio management firms to gain expert guidance. In Progress grading (credit to be given only on completion of courses 457C and 457D).

457C. Fieldwork in Investment Management. (2) Seminar, two hours; fieldwork, one hour. Four-term course. Monitoring of implemented strategy. Documentation and analysis of portfolio performance. Development of new strategy for incoming class. In Progress grading (credit to be given only on completion of course 457D).

457D. Fieldwork in Investment Management. (2) Seminar, two hours; fieldwork, one hour. Four-term course. Culmination and transition of portfolio management project. Formal presentation of new strategy to incoming class and delivery of annual report. Trains in focus on individual student presentations. Letter grading.

457. Leadership Communication. (4) Lecture, three hours. Study centers on communicative dimensions of leadership, executive presence, and persuasion. Frameworks allow for emerging and current leaders to excel in presenting sticky messages to investors, executives, boards, clients, and others. Hands-on nature of course allows for considerable communication practice. Student presentations are videotaped and analyzed. Topics include communicating with executive presence, strategic networking, designing compelling messages in both written and spoken forms, and persuasive tools, which may be appropriate to securing money requirements or ideas. Letter grading.

458B. Global Immersion: Two-Quarter Plan. (2–2) Emerging Enterprises: 458A, lecture, three hours; presentations, sites visits, and discussion, 20 hours; for course 458B: fieldwork, three hours; presentations, sites visits, and discussion, 20 hours. Course 458A is enforced requisite to 458B. Taught in English. Designed for MBA, EMBA, FEMBA, and GEMBA students. Four on-campus academic sessions and one intensive week in another country for blend of lectures, guest speakers, panel discussions, and company site visits. Focus on doing business in other countries. Exposure to economy, legal and political environment, major industries and businesses, local culture, key historical events, and many aspects of conducting business outside U.S. Taught by school faculty members in conjunction with courses by faculty members from top institutional partners, as well as local and regional government officials and ministers, local business executives, and influential leaders from country of focus. May be repeated for credit based on program requirements. In Progress (458A) and letter (458B) grading.

459E. International Exchange. (2 to 4) Lecture, 15 hours; discussion and assignments, up to 30 hours (2-unit course). Preparation: completion of first-year core courses. Taught in English. Open to EMBA and FEMBA students. Intensive one-week study at international universities and institutions in destination country. Topics vary but are tailored to MBA curriculum. S/U or letter grading.

460A-D. Managing Finance and Financing Emerging Enterprises. (2–2) Lecture, three hours. Course 460A is enforced requisite to 460B. Designed for second-year graduate students. Emphasis on financial, control, and investment issues confronting rapidly growing companies in entrepreneurial settings. Consideration and selection of financing vehicles that may be appropriate to securing money requirements of organizations. In Progress (460A) and letter (460B) grading.

466B. Advanced Financial Policy for Managers. (4) Lecture, four hours. Limited to Executive MBA program students. Modern financial management deals with decision making for corporate financial management, portfolio investment decisions, financial institutions, and international financial management. Focus on learning sound theoretical tools and applying them in casework. S/U or letter grading.

468. Macroeconomics and Economic Forecasting. (4) Lecture, four hours. Limited to Executive MBA program students. Macroeconomic theory and its application to business forecasting. Major economic indicators and their historical development in the U.S. economy; theoretical tools that business economists use to analyze impacts of monetary and fiscal policy; macroeconomic techniques applicable to business decisions. S/U or letter grading.

472B. Customer Information Strategy. (4) Lecture, four hours. Limited to Executive MBA program students. Exploration of innovation and marketing of products and services to customers. Use of creativity tools, customer research, and marketing science to create value and allocate resources so as to maximize revenues and profits that result. S/U or letter grading.

479E. International Exchange: Executive MBA Pro- gram. (2 to 4) Lecture, three hours; discussion and site visits, 20 hours. Preparation: completion of first-year core courses in Executive MBA program. Intensive one-week program in one foreign country, with coursework taught by faculty from their institutions in destination country. Topics vary but are tailored to MBA curriculum, including but not limited to finance, marketing, global economics, strategy, human resources, operations, and technology management. Exposure to local business practices, company site visits, and exploration of local cultural and historical sites. S/U or letter grading.

481A-481B. Negotiations Behavior. (2–2) Lecture, three hours. Course 481A is enforced requisite to 481B. Limited to Global Executive MBA students. Presentation of theoretical principles and concepts from psychology, sociology, and economics through lectures and readings, with focus primarily on improving practical negotiating skills through experiential learning (i.e., negotiations simulations). Participants learn to enhance their individual abilities in dynamic and ambiguous situations and to analyze and arrive at the most effective application of these skills. In Progress (481A) and letter (481B) grading.

484A-484B. Management of Technology and Innovation. (2–2) Lecture, three hours. Course 484A is enforced requisite to 484B. Limited to Executive MBA students. Problems of managing technological innovation in Asia. Topics include incorporation of traditional consideratio into strategy, adoption of technological innovation, promoting innovation through organizational design and leadership, e-business, and m-business. In Progress (484A) and letter (484B) grading.

495. Corporate Entrepreneurship. (4) Lecture, three hours. Managerial efforts aimed at identification, development, and exploitation of technical and organizational innovations, management of new product or process developments, and effective new venture management in context of large corporations in manufacturing and service industries. Development of awareness and understanding of range, scope, and potentiality of issues related to organizational environment that is supportive of entrepreneurial endeavors, and insight concerning effective implementation of technological and organizational innovations in corporate settings. Letter grading.

488. Business Plan Development. (4) Lecture, four hours. Enforced requisites: courses 487A, 487B. Limited to Executive MBA program students. How to develop business plans, understanding of analytical processes required to produce plans, improvement of student writing and oral presentation skills, and review of business plans of other entities. Writing of one complete business plan and presentation of it to experienced investors. Letter grading.

489. Entrepreneurship and Venture Initiation. (4) Lecture, 90 minutes. Limited to Executive MBA program students. Introduction to basic tools and jargon required for entrepreneurial financing or management of intellectual property. Terminology used by lawyers, accountants, venture capitalists, and other investors when forming and financing new companies. Assessment of feasibility of business concept and communication of concept to potential investors, employees, and business partners. S/U or letter grading.

495. Teaching Assistant Training Seminar. (4) Seminar, three hours. Preferred as teaching assistant, associate, or fellow in Anderson-based course. Required of all new teaching apprentices. Designed to prepare students for graduate-level teaching and provide practical teaching assistant training. Discussion of practical and theoretical issues about teaching in graduate business school. Emphasis on adult learning theory and pedagogy, theory versus practice in business, and electronic data interchange.
Management—Executive MBA

Graduate Courses


405. Economic Analysis for Managers. (4) Limited to Executive MBA program students. Policy-oriented problems in antitrust, tax securities, and environmental regulation. Concepts of microeconomic theory illustrated in topics such as antitrust regulation, new trends in antitrust, private versus government antitrust, securities regulation, environmental regulations, and a business firm’s optimal response to regulation. S/U or letter grading.

406. Financial Policy for Managers. (4) Lecture, four hours. Limited to Executive MBA program students. Modern financial management deals with decision making under uncertainty for corporate financial management, portfolio investment decisions, financial institutions, and international financial management. Focus on learning sound theoretical tools and applying them in coursework. S/U or letter grading.

409. Organizational Behaviors. (4) Lecture, three hours. Limited to Executive MBA program students. Introduction to organizational behavior for executives, including but not limited to optimal decision making, fostering motivation, and other topics on psychology of leadership. Lecture, discussion, and experiential applications of course concepts. S/U or letter grading.


411. Marketing Strategy and Policy. (4) Lecture, four hours. Limited to Executive MBA program students. Strategic marketing decisions, including development of marketing objectives and strategies and implementation of these strategies through pricing, channel, promotion, and new product decisions. S/U or letter grading.

414A. Leadership Foundations I. (2) Lecture, two hours. Limited to Executive MBA program students. Focus on individual problem-solving and decision-making skills. Alternative conceptual frameworks presented for augmenting diagnostic and decision-making skills of individuals. Emphasis on decision simulations, and discussions to explore areas of charting job and career progress, working with others, and shaping work culture. S/U or letter grading.

414B. Leadership Foundations II. (1) Lecture, one hour. Limited to Executive MBA students. Continuation of course 414A, with focus on development of self-assessment and self-reflection skills. Facilitation of self-evaluation of leadership strengths and weaknesses, with emphasis on individual peer coaching, conflict management, individual goal setting, and goal achievement. Readings, cases, decision simulations, peer coaching, and discussions. In Progress grading (credit to be given only on completion of course 414C).

414C. Leadership Foundations III. (1) Lecture, one hour. Limited to Executive MBA program students. Continuation of course 414C. Examination of leadership strengths and weaknesses, with emphasis on individual leadership and organizational change. Readings, cases, decision simulations, peer coaching, and discussions. In Progress grading (credit to be given only on completion of course 414D).

414E. Leadership Foundations IV. (1) Lecture, one hour. Limited to Executive MBA program students. Continuation of course 414D. Examination of leadership strengths and weaknesses, with emphasis on individual leadership and organizational change. Readings, cases, decision simulations, peer coaching, and discussions. In Progress grading (credit to be given only on completion of course 414E).

420. Competitive Strategy and Business Policy. (4) Limited to Executive MBA program students. Study of general management tools for forging a corporate competitive strategy. Emphasis on economics of business rivalry within a variety of industrial settings and implications of changes in competition. S/U or letter grading.

421. International Business Residential. (4) Seminar, six hours. Limited to Executive MBA program students. Continuation of course 414E. Examination of leadership strengths and weaknesses, with emphasis on individual leadership and organizational change. Readings, cases, decision simulations, peer coaching, and discussions. In Progress grading (credit to be given only on completion of course 414F).

422. Leadership in Practice. (4) Lecture, six hours. Limited to Executive MBA program students. Examination of problems and issues in area of current concern in management. S/U or letter grading.

423. Selected Topics in Management. (4) Seminar, six hours. Limited to Executive MBA program students. Examination of selected problems and issues in area of current concern in management. Letter grading.

424. Selected Topics in Management. (4) Seminar, six hours. Limited to Executive MBA program students. Examination of selected problems and issues in area of current concern in management. Letter grading.


Management—Full-Time MBA

Graduate Courses

401A-401B. Foundations of Inclusive Leadership. (1–1) Lecture, limited hours. Course 401A is requisite to 401B. Designed to increase student knowledge of, and competency in, leadership. Conceptual framework is grounded in principles of individual, group, and organizational behavior. Offers different perspectives on topics of leadership, with emphasis on. S/U or letter grading.

405. Managerial Economics. (4) Lecture, three hours. Designed for graduate students. Analysis of consumer, producer, and market behavior. Market structure, pricing, and resource allocation. Applications to managerial strategy and public policy, with emphasis on relationships among individuals, groups, and organizational units as they influence managerial process and development of prospective general managers. Letter grading.


410. Operations Technology Management. (4) Lecture, three hours. Requisites: courses 402, 403. Principles and decision analysis related to effective utilization of facilities in manufacturing and nonmanufacturing activities for both intermittent and continuous systems. Production organizations, analytical models and methods, facilities design, and design of control systems for production operations. Letter grading.


420. Business Strategy. (4) Lecture, three hours. Fieldwork, eight hours. Must be taken in second year (or its equivalent for part-time students). Supervised study of an organization, including client/consultant relationships, identification of problems or strategic questions, design of study, collection and analysis of data, development and reporting of implementable recommendations. Letter grading.

421A. Communication Development for Leaders. (2) Lecture, three hours. Course 421A is requisite to 421B. Focus on communication basics and tailored to students’ needs—entrepreneurship, interpersonal communications, or public speaking. Students learn skills required to become successful presenter; how to present differing types of materials, apply communication theory and strategy to organize informative and persuasive content, deliver presentations to varied audiences; how to apply visual and verbal reasoning and how to analyze audiences, organize and manage messages for maximum persuasive impact, and communicate these messages in persuasive manner. Letter grading.

421B. Communication Development for Leaders II. (2) Lecture, three hours. Requisite: course 421A. Focus on providing tools and skills that allow students to excel in communicating their vision, inspiring and gaining commitment from stakeholders, and impressing interviewers and investors. Course materials are grounded in empirical research. Skills and techniques learned are broadly generalizable. Experiential exercises to enhance students’ abilities in oral and written communications. Study builds on managerial communication skills developed in Communication Development for Leaders (course 421A). Letter grading.

422. Applied Management Research. (B) Fieldwork, eight hours. Must be taken in second year (or its equivalent for part-time students). Supervised study of an organization, including client/consultant relationships, identification of problems or strategic questions, design of study, collection and analysis of data, development and reporting of implementable recommendations. Letter grading.

423A. Introduction to Applied Management Research. (2) Lecture, two hours. Limited to full-time MBA program students. Must be taken after completion of first year in program. Projects include: (1) faculty-guided consulting project with private companies, nonprofit organizations, or government agencies; (2) establishment of client/consultant relationships, identification of problems or strategic questions, design of study, collection and analysis of data, development of comprehensive business plan, and formal presentation of findings and recommendations or (2) faculty-guided implementation of new business (3) pursuit of one faculty-led special research project worthy of publication in recognized academic research journal. In Progress (423B) and S/U or letter (423C) grading.

425B–425C. Applied Management Research: Two-Quarter Plan. (4–4) Fieldwork, four hours. Limited to full-time MBA program students. Must be taken after completion of first year in program. Projects include: faculty-guided consulting project with private companies, nonprofit organizations, or government agencies; establishment of client/consultant relationships, identification of problems or strategic questions, design of study, collection and analysis of data, development of comprehensive business plan, and formal presentation of findings and recommendations or (2) faculty-guided implementation of new business (3) pursuit of one faculty-led special research project worthy of publication in recognized academic research journal. In Progress (423B) and S/U or letter (423C) grading.

426. Fieldwork in Organizations. (4) Fieldwork, to be arranged. Preparation: completion of at least two terms of MBA program. Required of all full-time MBA students. Under direction of MBA program senior associate dean or other supervising faculty advisor, students perform supervised practical experience or fieldwork in organization as intern or fellow. Execution of predetermined assignment(s) pursuant to defined program of study that includes reporting and assessment of fieldwork experience through combination of written or oral presentations and may include preparation of evaluations or consulting report correlating to defined program of study. S/U grading.

428A–428B. Business Strategy Capstone. (6–4) Lecture, three hours; fieldwork, three hours. Limited to full-time MBA program students. Designed for students interested in launching their own business. Students work closely with a faculty advisor to develop comprehensive strategy for launching that business. Fulfills MBA comprehensive examination requirement. In Progress (428A) and letter (428B) grading.

Management–Fully Employed MBA Graduate Courses

401. Leadership Foundations. (2) Lecture, three hours. Designed to enhance student knowledge of, and competency in, leadership. Conceptual framework is grounded in principles of individual, group, and organizational behavior. Offers different perspectives on topic of leaderships, with emphasis on development of skills that support effective leadership in diverse situations. Combination of readings, lectures, cases, experiential exercises, and class discussion allows entering MBA students to determine their own leader strengths and limitations; and to develop plan for maintaining or improving their strengths and identifying potential challenges. Letter grading.

402. Data and Decisions. (4) Lecture, three hours. Topics include probabilities, random variables (expectation, variance, covariance, normal random variables), decision trees, estimation, hypothesis testing, and multiple regression models. Emphasis on actual business problems and data. Letter grading.


408. Foundations of Finance. (4) Lecture, three hours. Fieldwork, three hours. Requisites: courses 402, 403. Principles and decision analysis related to effective utilization of facilities in manufacturing and nonmanufacturing activities for both intermittent and continuous systems. Production organizations, analytical models and methods, facilities design, and design of control systems for production operations. Letter grading.

410. Operations Technology Management. (4) Lecture, three hours. Requisites: courses 402, 403. Principles and decision analysis related to effective utilization of facilities in manufacturing and nonmanufacturing activities for both intermittent and continuous systems. Production organizations, analytical models and methods, facilities design, and design of control systems for production operations. Letter grading.


420. Business Strategy. (4) Lecture, three hours. Fieldwork, eight hours. Must be taken in second year (or its equivalent for part-time students). Supervised study of an organization, including client/consultant relationships, identification of problems or strategic questions, design of study, collection and analysis of data, development and reporting of implementable recommendations. Letter grading.

421A. Communication Development for Leaders. (2) Lecture, three hours. Course 421A is requisite to 421B. Focus on communication basics and tailored to students’ needs—entrepreneurship, interpersonal communications, or public speaking. Students learn skills required to become successful presenter; how to present differing types of materials, apply communication theory and strategy to organize informative and persuasive content, deliver presentations to varied audiences; how to apply visual and verbal reasoning and how to analyze audiences, organize and manage messages for maximum persuasive impact, and communicate these messages in persuasive manner. Letter grading.

421B. Communication Development for Leaders II. (2) Lecture, three hours. Requisite: course 421A. Focus on providing tools and skills that allow students to excel in communicating their vision, inspiring and gaining commitment from stakeholders, and impressing interviewers and investors. Course materials are grounded in empirical research. Skills and techniques learned are broadly generalizable. Experiential exercises to enhance students’ abilities in oral and written communications. Study builds on managerial communication skills developed in Communication Development for Leaders (course 421A). Letter grading.

422. Applied Management Research. (B) Fieldwork, eight hours. Must be taken in second year (or its equivalent for part-time students). Supervised study of an organization, including client/consultant relationships, identification of problems or strategic questions, design of study, collection and analysis of data, development and reporting of implementable recommendations. Letter grading.

401. Leadership Foundations. (2) Lecture, three hours. Designed to enhance student knowledge of, and competency in, leadership. Conceptual framework is grounded in principles of individual, group, and organizational behavior. Offers different perspectives on topic of leaderships, with emphasis on development of skills that support effective leadership in diverse situations. Combination of readings, lectures, cases, experiential exercises, and class discussion allows entering MBA students to determine their own leader strengths and limitations; and to develop plan for maintaining or improving their strengths and identifying potential challenges. Letter grading.

402. Data and Decisions. (4) Lecture, three hours. Topics include probabilities, random variables (expectation, variance, covariance, normal random variables), decision trees, estimation, hypothesis testing, and multiple regression models. Emphasis on actual business problems and data. Letter grading.


408. Foundations of Finance. (4) Lecture, three hours. Fieldwork, three hours. Requisites: courses 402, 403. Principles and decision analysis related to effective utilization of facilities in manufacturing and nonmanufacturing activities for both intermittent and continuous systems. Production organizations, analytical models and methods, facilities design, and design of control systems for production operations. Letter grading.

410. Operations Technology Management. (4) Lecture, three hours. Requisites: courses 402, 403. Principles and decision analysis related to effective utilization of facilities in manufacturing and nonmanufacturing activities for both intermittent and continuous systems. Production organizations, analytical models and methods, facilities design, and design of control systems for production operations. Letter grading.


420. Business Strategy. (4) Lecture, three hours. Fieldwork, eight hours. Must be taken in second year (or its equivalent for part-time students). Supervised study of an organization, including client/consultant relationships, identification of problems or strategic questions, design of study, collection and analysis of data, development and reporting of implementable recommendations. Letter grading.
Management – Global Executive MBA Asia Pacific Graduate Courses


402A-402B. Business Creation Capstone. (6–4) Lecture, three hours; fieldwork, three hours. Limited to fully employed MBA program students. Designed for students interested in launching their own business. Student teams work on business idea and develop comprehensive strategy for launching that business. Fulfills FEMBA comprehensive examination requirement. In Progress (402A) and letter (402B) grading.

404. Negotiations Behavior. (4) Lecture, three hours. Presentation of theoretical principles and concepts from psychology, sociology, and economics through lectures and readings, with focus primarily on improving practical negotiating skills through experiential learning (i.e., negotiations simulations). Participants learn to enhance their individual abilities in dyadic and group situations and to analyze contexts for most effective application of these skills. Letter grading.

406. Strategic Leadership and Implementation. (4) Formerly numbered 406A. Lecture, three hours. Designed to address several fundamental aspects of leading complex organizations, with emphasis on important tasks of developing well-aligned, high-performance organizations and on challenges of leading change in organizations. Enables students to develop organized point of view on strategic leadership and to increase their awareness of themselves as leaders. Letter grading.

407A-407B. Entrepreneurship and Venture Initiation I, II. (2–2) Lecture, 90 minutes. Course 407A is requisite to 407B. Limited to UCLA-NUS Executive MBA program students. Introduction to basic tools and jargon of entrepreneurship that underlies new organization creation and the evaluation of new business ideas. Fulfills FEMBA comprehensive examination requirement. In Progress (407A) and letter (407B) grading.

408. Fixed-Income Markets. (4) Lecture, three hours. Limited to Master of Financial Engineering program students. Quantitative and computational tools used in finance, including numerical techniques such as implementation of binomial and trinomial pricing, lattice algorithms for computing derivative prices, interest rate models, simulation-based algorithms for pricing American options, and numerical solution of partial differential equations that appear in financial engineering. S/U or letter grading.

410A. Logistics and Operations Management. (2) Formerly numbered 410). Lecture, three hours. Limited to UCLA-NUS Executive MBA program students. Analysis of strategic and operating policies and decision-making systems that produce goods and services. Examination of role of comprehensive planning, inventories, scheduling of resources, distribution systems, and system location. Comprehensive operating problems. Letter grading.

410B. Logistics and Operations Management. (2) Lecture, three hours. Limited to UCLA-NUS Executive MBA program students. Analysis of strategic and operating policies and decision-making systems that produce goods and services. Examination of role of comprehensive planning, inventories, scheduling of resources, distribution systems, and system location. Comprehensive operating problems. Letter grading.

411. Management of Technology and Innovation. (4) Lecture, three hours. Problems of managing technological innovation in Asia. Topics include incorporation of technological consideration into strategy, adoption of technological innovation into technological processes through organizational design and leadership, e-business, and m-business. Letter grading.

412. Selected Topics in Management. (4) Seminar, six hours. Limited to UCLA-NUS Executive MBA program students. Examination of selected problems and issues in area of current concern in management. Letter grading.


415. Corporate Finance. (4) Lecture, six hours. Limited to UCLA-NUS Executive MBA program students. Examination of selected problems and issues in area of current concern in management. Letter grading.


Management – Master of Financial Engineering Graduate Courses


403. Stochastic Calculus. (4) Lecture, three hours. Limited to Master of Financial Engineering program students. Economic, statistical, and mathematical foundations of derivatives and contingent and continuous-time paradigms used in derivatives finance, including introduction to stochastic processes, stochastic differential equations, Ito’s lemma, and key elements of stochastic calculus, including Brownian motion, and applications of it to financial decision problems such as portfolio selection. Letter grading.
Management—Master of Science in Business Analytics

Graduate Courses


402. SQL and Basic Data Management. (2) Lecture, three hours. Limited to Master of Science in Business Analytics students. Introduction to and practice in Structured Query Language and construction of data definitions, data manipulation, and data controls in relational databases using MySQL and important concepts of data management including data analysis and modeling for relational database management systems (RDBMS). Letter grading.


408. Operations Analytics. (4) Lecture, three hours. Limited to Master of Science in Business Analytics students. Application of operations analytics to examine competitive conditions in industry or market. S/U or letter grading.


411. Fieldwork/Research in Business Analytics. (4) Fieldwork, to be arranged. Preparation: completion of one term of MFE program. Limited to Master of Financial Engineering program students. Supervised, nonpaid practical research experience or fieldwork assignment as intern or fellow. Execution of predetermined assignment(s) pursuant to defined program of study that may include formal coursework. May not be applied toward MFE degree requirements. S/U grading.

412. Trading, Market Frictions, and FinTech. (4) Lecture, three hours. Examination of financial market infrastructure and mechanism of price formation and discovery. Development and development of different perspectives on critical phenomena such as bubbles and crashes, short squeezes, and mutual fund runs. Case studies of FinTech unicorns demonstrate how those firms profit from resolving market frictions and how recent technology changes landscape of trading. Discussion of new implications of these technological advancements in stock market (i.e., high-frequency trading) and alternative markets (i.e., bond market and cryptocurrency market). Letter grading.

415A–415B. Career Development Series. (2 to 4) Lecture, three hours. Career search process requires active engagement on part of job candidate. Preliminary action is self-assessment, recognizing and valuing one’s own strengths and skills to present oneself to employers as top candidate for target roles. Students identify industry and employers that are aligned with their career goals and utilize career strategies covered, including presenting oneself professionally, networking, strong application documents (résumé, cover letter, e-mail, etc.), and availability to communicate their value, during internship process. S/U or letter grading.

431. Special Topics in Financial Engineering. (2 to 4) Lecture, three hours. Limited to Master of Financial Engineering program students. In-depth examination of problems or issues in one area of current concern in financial engineering. May be repeated for credit. S/U or letter grading.

432. Entertainment Analytics. (2) Lecture, three hours. Limited to Master of Science in Business Analytics students. Focuses on strategic and tactical issues that come up after foundational training, specifically those related to customer acquisition and customer retention. Introduction of analytics frameworks, data structures, and models needed to support best practices around these issues. S/U or letter grading.

433. Entertainment Analytics. (2) Lecture, three hours. Limited to Master of Science in Business Analytics students. Focuses on strategic and tactical issues that come up after foundational training, specifically those related to customer acquisition and customer retention. Introduction of analytics frameworks, data structures, and models needed to support best practices around these issues. S/U or letter grading.

434. Advanced Workshop on Machine Learning. (2) Lecture, three hours (five weeks). Limited to Master of Science in Business Analytics students. Introduction to business analytics and data science. Topics: statistics, machine learning, and data science. Focus on building models and understanding model performance in real-world settings. Students hone their communication skills by delivering a talk about both industry investment needed to produce and disseminate content, and how revenues are being extracted covered at each stage. S/U or letter grading.

435. Data Visualization. (2) Lecture, three hours (five weeks). Limited to Master of Science in Business Analytics students. Focuses on strategic and tactical issues that come up after foundational training, specifically those related to customer acquisition and customer retention. Introduction of analytics frameworks, data structures, and models needed to support best practices around these issues. S/U or letter grading.

436. Fraud Analytics. (2) Lecture, three hours (five weeks). Limited to Master of Science in Business Analytics students. Focuses on strategic and tactical issues that come up after foundational training, specifically those related to customer acquisition and customer retention. Introduction of analytics frameworks, data structures, and models needed to support best practices around these issues. S/U or letter grading.

437. Forecasting and Time Series. (2) Lecture, three hours (five weeks). Limited to Master of Science in Business Analytics students. Focuses on strategic and tactical issues that come up after foundational training, specifically those related to customer acquisition and customer retention. Introduction of analytics frameworks, data structures, and models needed to support best practices around these issues. S/U or letter grading.

438. Industry Seminar II. (2) Seminar, 90 minutes to three hours. Required of Master of Science in Business Analytics students. Industry guest speaker presentations. S/U or letter grading.

439. Fraud Analytics. (2) Lecture, three hours (five weeks). Limited to Master of Science in Business Analytics students. Focuses on strategic and tactical issues that come up after foundational training, specifically those related to customer acquisition and customer retention. Introduction of analytics frameworks, data structures, and models needed to support best practices around these issues. S/U or letter grading.

Management—PhD Graduate Courses

200. Economics of Decision. (4) Discussion, three hours. Preparation: basic probability theory. Basics of single-person decision theory and introduction to non-cooperative game theory. Examination in some detail of von Neumann/Morgenstern expected utility theory. Other topics in decision theory include subjective expected utility theory and departures from expected utility theory and departures from expected utility theory. S/U or letter grading.


202A-202B-202C. Accounting Workshops. (1–1–2) Seminar, three hours. Recommended requisites: course 201A. Designed for PhD students. Introduction to topics and issues of modern accounting research. S/U or letter grading.

209A-209B-209C. Management Strategy and Policy Workshops. (1–1–2) Lecture, three hours. Designed for PhD students. Intended to develop ability to critically evaluate research in fields relevant to study of management strategy and policy. Papers presented in colloquium format by leading scholars in management strategy and policy. Active participation and intellectual interchange encouraged through discussion of papers during colloquium. May be repeated for credit. S/U or letter grading.

213. Introduction to Multivariate Analysis. (4) Lecture, three hours. Designed for PhD students. Survey course to (1) lay foundations for more advanced study of multivariate analysis models; (2) present exploratory models (e.g., principal axes and factor analysis); (3) present confirmatory factor models. S/U or letter grading.

233. Introduction to Multivariate Analysis. (4) Lecture, three hours. Course 236A is requisite to 236B. Designed for PhD students in their second through fourth year. Intended to help students bridge gap between coursework and research. Students select academic topic for presentation, and develop and present talk. To be presented in colloquium format by leading scholars in accounting, finance, and organizational behavior. S/U or letter grading.


260A-260B-260C. Research Seminars: Management and Organizational Behavior. (1–1–2) Seminar, two hours. Designed for PhD students. Development of ability to critically evaluate research in fields relevant to study of problems or issues of current concern in management and organizational behavior. Papers presented in colloquium format by leading scholars in organizational behavior. Active participation and intellectual interchange encouraged through discussion of papers during colloquium. May be repeated for credit. S/U or letter grading.

270A-270B-270C. Workshops: Marketing. (1–1–2) Lecture, three hours. Required of all students during first two years of their PhD work. Series consists of number of leading scholars in marketing and related disciplines who make presentations to faculty and PhD students. Active participation and intellectual interchange that helps students gain rich perspective on field of study. In Progress (207A, 207B) and S/U or letter (207C) grading.


290A-290B-290C. Management Strategy and Policy Workshops. (1–1–2) Lecture, three hours. Designed for PhD students. Intended to develop ability to critically evaluate research in fields relevant to study of management strategy and policy. Papers presented in colloquium format by leading scholars in management strategy and policy. Active participation and intellectual interchange encouraged through discussion of papers in sessions prior to workshop, as well as during colloquium. May be repeated for credit. S/U or letter grading.

291. Network Flows and Integer Programming. (4) Lecture, three hours. Lecture, two hours. Linear programming Survey course to (1) lay foundations for more advanced study of graphs, network flow models, and integer programming models and their applications; (2) establish connections between these technical foci and real problems drawn from many areas of management; and (3) build professional skills needed to apply these tools. S/U or letter grading.

292. Behavior under Uncertainty. (4) Lecture, three hours. Designed for PhD students. Exploration of foundational research and current controversies in behavioral literature on judgment and decision making under uncertainty. S/U or letter grading.

293. Introduction to Multivariate Analysis. (4) Lecture, three hours. Advanced course. Working knowledge of differential and integral calculus of several variables, basic probability theory, and univariate mathematical statistics. Introduction to use of multivariate models in management research to organize and represent information; interpretation of coefficients from multivariate exploratory models (e.g., principal axes and factor analysis models); survey of multivariate statistical procedures (e.g., multiple discriminance analysis, multivariate analysis of variance, canonical correlation, and confirmatory factor models). S/U or letter grading.

294. Special Topics in Accounting. (4) Lecture, three hours. Preparation: doctoral standing or consent of instructor. Examination in depth of topics in current interest in accounting, such as application of information economics and principal-agent model to accounting (S/U or letter grading).


237. Introduction to Financial Economics. (4) Lecture, three hours. Preparation: doctoral standing or consent of instructor. Introduction to empirical evidence and economic theory of asset pricing. Emphasis is on continuous time mathematics as applied to pricing of financial assets. S/U or letter grading.

238. Macroeconomics and Finance. (4) Lecture, three hours. Introduction to introduction to study of financial market systems. Emphasis is on continuous time mathematics as applied to pricing of financial assets. S/U or letter grading.

239. Empirical Asset Pricing. (4) Lecture, three hours. Focus on measuring and understanding risk premiums in financial markets. Study of evidence pertaining to pricing kernel and applied theoretical developments that are motivated by evidence. S/U or letter grading.


241A. Models for Operations Planning, Scheduling, and Control. (4) Lecture, three hours. Designed for PhD students with some knowledge of mathematical programming and stochastic processes. Foundations of operations planning, scheduling, and control, with emphasis on formal modeling and its applications. Aggregate planning, work force scheduling, inventory management, and operations planning and control. S/U or letter grading.


242. Special Topics in Decisions, Operations, and Technology Management. (4) Lecture, three hours. Designed for MSA and PhD students. Studies of advanced subjects of current interest in decisions, operations, and technology management. Emphasis on recent developments and management knowledge. Topics vary each term and have included strategy for information intensive industries, empirical research in operations management, analytical models and computerization of operations management in information economy, and models for medical management. May be repeated for credit with topic change. S/U or letter grading.

M243. Foundations of Organizational Behavior. (4) (Same as Psychology M222E.) Lecture, three hours. Designed for graduate students. Doctoral-level survey of classical and emerging theories and research in field of organizational behavior, with focus on micro-level topics related to individuals and interpersonal processes within organizations. Exploration of how individual behaviors, cognitions, and perceptions are affected by organizational context, structure, and culture. S/U or letter grading.

244. Advanced Studies in Organizational Behavior. (4) Lecture, three hours. Designed for graduate students. Doctoral-level survey of research literature assessing how organizations utilize human resources to enhance individual, group, and organizational effectiveness. Current theory and research in psychology, anthropology, organization behavior, and economics, including topics such as careers, participation, negotiations, and technology systems. S/U or letter grading.

245. Research in Organizations. (4) Seminar, three hours. Designed for graduate students. Doctoral-level seminar on major topics in the field of organizational behavior, with focus on macro-level organizational topics related to study of organizational systems and organizational environments. Topics may include demography, organizational change, organizational structure, and network. S/U or letter grading.
246. Theory in Marketing. (4) Lecture, three hours. Serves as mechanism to introduce students to development of marketing thought. Issues pertaining to general topics in marketing development are presented. Preparing students for conducting theoretically grounded research in marketing. S/U or letter grading.

247. Research in Marketing Management. (4) Lecture, three hours. Designed for PhD students. Study of research issues associated with marketing management decisions. Recent research in areas of strategic marketing, market segmentation, new product development and introduction, pricing strategies, channel policy, product decisions, and sales force management examined critically. Review of both quantitative and behavioral approaches to studying these issues. S/U or letter grading.

248. Quantitative Research in Marketing. (4) Lecture, three hours. Designed for PhD students in management and related fields. Students are assumed to have good background in marketing principles and to be familiar with probability, statistics, mathematical programming, and econometrics. Review of a range of quantitative models as applied in marketing research. S/U or letter grading.

249. Behavioral Research in Marketing. (4) Seminar, three hours. Designed for PhD students who are conducting research in consumer behavior or related areas. Empirical research in consumer behavior surveyed and critically evaluated from theoretical as well as practical perspectives. S/U or letter grading.

250. Special Research Topics in Marketing. (4) Lecture, three hours. Designed for PhD students. Advanced selected topics in marketing, with emphasis on thorough examination of one or two topics in current research and theory. May be repeated for credit. S/U or letter grading.

M251. Research and Development Policy. (4) (Same as Public Policy M280A.) Lecture, three hours. Examination of research and development as process and as element of goal-oriented organization. Factors affecting invention and innovation; transfer of technology; organizational and behavioral considerations; coupling of science, technology, and organizational goals; assessing of and forecasting technological futures. S/U or letter grading.

252. Special Topics in Management Theory. (4) Lecture, three hours. Designed for PhD students. Examination in depth of problems or issues of current concern in management theory. Emphasis on recent contributions to theory, research, and methodology. Of special interest to advanced PhD candidates, academic staff or distinguished visiting faculty. May be repeated for credit. S/U or letter grading.

253. Field Research in Organizations and Management. (4) Seminar, three hours. Designed for PhD students. Immersion in discipline and practice of using field data to conduct management research. Students become more informed users and reviewers of variety of methodological approaches. Students gain familiarity with approaching companies to partner on research, gathering and preparing to analyze field data, and what to expect in review process for paper that uses field data. Content of research discussed could extend to other fields (e.g., strategy, psychology, judgment and decision making). S/U or letter grading.


255. Information and Trading in Financial Markets. (4) Lecture, three hours. Consideration of research on how information is processed in financial markets. Emphasis on classical models, as well as psychological approaches to stock price movements. Review of behavioral interpretations of trading behavior and price patterns in financial markets. S/U or letter grading.

260. Behavioral Economics: Individuals, Organizations, and Markets. (4) Lecture, three hours. Study of how predictions of behavior and optimal economic policy differ when traditional economic assumptions (often selfish, unbounded rationality) are replaced with more psychologically realistic assumptions drawn from lab and world. Special attention to way in which these modified assumptions can be incorporated into broadly applicable and parsimonious models of human behavior, and what they imply for markets, management, and public policy. Letter grading.

261. Judgment and Decision Making. (4) Lecture, three hours. Introduction to behavioral research on judgment and decision making, with special attention to conditions of uncertainty. Includes research by Daniel Kahneman and Amos Tversky for which Kahneman was awarded 2002 Nobel Memorial Prize in Economics, and some of work for which Richard Thaler was cited in his Nobel Memorial Prize in 2017. Examination of recent descriptive models of judgment and decision making using rational choice theory as point of departure. Examination of classic articles and current controversies. Letter grading.

262. Applied Analysis for Behavioral Research. (4) Lecture, three hours. Provides foundation for statistical analyses that are conducted as part of career as behavioral researcher. Heavy focus on understanding and using statistical analyses, not deriving proofs. Letter grading.

263. Choice Architecture and Nudging in Field. (4) Lecture, three hours. Application of behavioral science to field experimentation. Designed to bridge crucial educational gap for PhD students. Includes identifying research partners, achieving scale, dealing with logistical challenges, and collaborating with outside institutions who may have different goals. Letter grading.

270. Political Economy of Economic Development. (4) Lecture, three hours. Use of historical and comparative approach to understanding evolution and development of societies. Examination of research that asks whether differences in economic development today have historical roots. Study of different mechanisms and channels through which historical matters. Particular attention to role of domestic institutions and culture in explaining historical persistence. Letter grading.

Materials Science and Engineering

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Materials Science and Engineering 310-825-5534
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Faculty Roster

Professors
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Jane P. Chang, PhD (William Frederick Seyer Professor of Materials Electrochemistry)
Yong Chen, PhD
Bruce S. Dunn, PhD (Nippon Sheet Glass Company Professor of Materials Science)
Mark S. Goorsky, PhD
Vijay Gupta, PhD
Yu Huang, PhD (Traugott and Dorothea Frederking Endowed Professor)

Subramanian S. Iyer, PhD (Charles P. Reames Endowed Professor of Electrical Engineering)
Ioanna Kakoulli, DPhil
Richard B. Kaner, PhD
Xiaochun Li, PhD (Raytheon Company Professor of Mechanical Engineering)
Jaime Marian, PhD
Ali Mosleh, PhD, NAE (Evelyn Knight Professor of Engineering)
Qibing Pei, PhD
Gaurav N. Sant, PhD (Pritzker Professor of Sustainability)
Dwight C. Streit, PhD, NAE
Sarah H. Tolbert, PhD
Kang L. Wang (Raytheon Company Professor of Electrical Engineering)
Yinmin (Morris) Wang, PhD
Paul S. Weiss, PhD (Presidental Professor of Chemistry)
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Jenn-Ming Yang, PhD (Collins Aerospace Term Professor of Excellence)
Yang Yang, PhD (Carol and Lawrence E. Tannas, Jr., Endowed Professor of Engineering)

Professors Emeriti
Alan J. Ardell, PhD
Nasr M. Ghoniem, PhD
Kanji Ono, PhD
Benjamin M. Wu, DDS, PhD

Associate Professor
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Assistant Professors
Amartya S. Banerjee, PhD
Laura Kim, PhD
Aaswath P. Raman, PhD

Lecturer
Magdalena Balonis-Sant, PhD

Adjunct Associate Professors
Eric P. Bescher, PhD
Sergey Prikhodko, PhD

Adjunct Assistant Professor
Marta Pozuelo, PhD

Overview
At the heart of materials science and engineering is the understanding and control of the microstructure of solids. Microstructure is used broadly in reference to electronic and atomic structure of solids—and defects within them—at size scales ranging from atomic bond lengths to airplane wings. The structure of solids over this wide range dictates their structural, electrical, biological, and chemical properties. The phenomenological and mechanistic relationships between microstructure and the macroscopic properties of solids are, in essence, what materials science is all about. Materials engineering builds on the foundation of materials science and is concerned with the design, fabrication, and optimal selection of engineering materials that must simultaneously fulfill dimensional, property, quality control, and economic requirements.
Undergraduate Major

Materials Engineering BS

The materials engineering program is designed for students who wish to pursue a professional career in the materials field and desire a broad understanding of the relationship between microstructure and properties of materials. Metals, ceramics, and polymers, as well as the design, fabrication, and testing of metallic and other materials such as oxides, glasses, and fiber-reinforced composites, are included in the course contents.

Students are introduced to the basic principles of metallurgy and ceramic and polymer science as part of the Materials Engineering major.

The department also has a program in electronic materials that provides a broad-based background in materials science, with opportunity to specialize in the study of those materials used for electronic and optoelectronic applications. The program incorporates several courses in electrical engineering in addition to those in the Materials Science curriculum.

The materials engineering program is accredited by the Engineering Accreditation Commission of ABET.

Capstone Major

The Materials Engineering major is a designated capstone major. Students undertake two individual projects involving materials selection, treatment, and serviceability. Successful completion requires working knowledge of physical properties of materials and strategies and methodologies of using materials properties in the materials selection process. Students learn and work independently and practice leadership and teamwork in and across disciplines. They are also expected to communicate effectively in oral, graphic, and written forms.

Learning Outcomes

The Materials Engineering major has the following learning outcomes:

- Application of knowledge of mathematics, natural science, and engineering to analysis of materials and other systems
- Learn and work independently
- Practice leadership and teamwork in and across disciplines
- Design of a system, component, or process to meet desired needs
- Effective oral, graphic, and written communication
- Identification, formulation, and solution of engineering problems

Requirements

Materials Engineering Option

Preparation for the Major

Required: Chemistry and Biochemistry 20A, 20B, 20L; Civil and Environmental Engineering 101, 102; Computer Science 31 or Mechanical and Aerospace Engineering 20; Materials Science and Engineering 10, 90L; Mathematics 31A, 31B, 32A, 32B, 33A, 33B (or Mechanical and Aerospace Engineering 82); Physics 1A, 1B, 1C.

The Major

Required: Civil and Environmental Engineering 91 (or Mechanical and Aerospace Engineering 101), 108, Electrical and Computer Engineering 100, Materials Science and Engineering 104, 110, 110L, 120, 130, 131L, 132, 143A, 150, 160; one upper-division mathematics course selected from Civil and Environmental Engineering 103, Electrical and Computer Engineering 102, Mathematics 132, Mechanical and Aerospace Engineering 12B, 182; two laboratory courses (4 units) from Materials Science and Engineering 121L, 141L, 143L, 161L, or up to 2 units of 199; three technical breadth courses (12 units) selected from an approved list available in the Office of Academic and Student Affairs; two capstone design courses (Materials Science and Engineering 140A and 140B); and two major field elective courses (8 units) from Chemical Engineering CM114, Civil and Environmental Engineering 130, Electrical and Computer Engineering 2, 123A, 123B, Materials Science and Engineering 105, C111, C112, 121, 122, 151, 161, 162, Mechanical and Aerospace Engineering 156A, 166C, plus at least one elective course (4 units) from Chemistry and Biochemistry 30A, 30AL, Electrical and Computer Engineering 131A, Materials Science and Engineering 170, 171, Mathematics 170A, or Statistics 100A.

For information on UC, school, and general education requirements, see the Samueli school section in College and Schools.

Electronic Materials Option

Preparation for the Major

Required: Chemistry and Biochemistry 20A, 20B, 20L; Civil and Environmental Engineering M20 or Computer Science 31 or Mechanical and Aerospace Engineering M20; Materials Science and Engineering 10, 90L; Mathematics 31A, 31B, 32A, 32B, 33A, 33B (or Mechanical and Aerospace Engineering 82); Physics 1A, 1B, 1C.

The Major

Required: Electrical and Computer Engineering 100, 101A, 121B, Materials Science and Engineering 104, 110, 110L, 120, 121L, 122, 130, 131, 131L, 132, Mechanical and Aerospace Engineering 101; one upper-division mathematics course selected from Civil and Environmental Engineering 103, Electrical and Computer Engineering 102, Mathematics 132, Mechanical and Aerospace Engineering 182B, 182C; either Materials Science and Engineering 150 or 160 and one course (4 units) from Electrical and Computer Engineering 123A, 123B, Materials Science and Engineering 150, 160; 4 laboratory units from Materials Science and Engineering 141L, 161L, or up to 2 units of 199; three technical breadth courses (12 units) selected from an approved list available in the Office of Academic and Student Affairs; two capstone design courses (Materials Science and Engineering 140A and 140B); and one major field elective course (4 units) from Electrical and Computer Engineering 110, 131A, Materials Science and Engineering 105, C111, C112, 143A, or 162.
ploration of ancient engineering materials (their micro/nano structure and physical, chemical, and mechanical properties), and their durability and sustainability as time-processed science. Printables and methods of materials characterization in conservation: optical and electron microscopy, X-ray and electron spectroscopy, X-ray diffraction, infrared spectroscopy, reflectance spectroscopy and multispectral imaging. Comparison of results with theory. Letter grading.

99. Student Research Program. (1 to 2) Supervised research or other scholarly work, three hours per week per semester for two semesters, required for lower division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in a minimum of 12 units (excluding this course). Individual project. Consent: Undergraduate Research Center. May be repeated, P/NP grading.

Upper-Division Courses

104. Science of Engineering Materials. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Requisites: Chemistry 20A, 20B, 20L, Physics 1A, 1B, 1C. Corequisite: General introduction to some of the different types of materials used in engineering designs: metals, ceramics, plastics, and composites, relationship between structure (crystals and microstructure) and properties of technological materials. Illustration of their fundamental differences and their applications in engineering. Letter grading.

105. Principles of Nanoscience and Nanotechnology. (4) Formerly numbered M105. Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: Chemistry 20A, 20B, Physics 1C. Introduction to underlying science encompassing structure, properties, and fabrication of nanoscale and mesoscale systems. New phenomena that emerge in very small systems typically with feature sizes below a few hundred nanometers explained using basic concepts from physics and chemistry. Techniques for producing materials with controllable properties, electron transport, structural stability, self-assembly, templated assembly and applications of various nanostructures such as quantum dots, nanoparticles, quantum wires, quantum wells and multilayers, carbon nanotubes. Letter grading.

110. Introduction to Materials Characterization A (Crystal Structure, Nanostructures, and X-Ray Scattering). (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 104. Modern methods of materials characterization: fundamentals of crystallography, properties of X-rays, X-ray scattering; powder method; Laue method; determination of crystal structure; phase diagram determination; high-resolution X-ray diffraction methods; X-ray spectroscopy; design of materials characterization procedures. Letter grading.

110L. Introduction to Materials Characterization B Laboratory. (2) Laboratory, four hours; outside study, two hours. Enforced requisite: course 104. Experimental techniques and analysis of materials through X-ray scattering techniques; powder method, crystal structure determination, high-resolution X-ray diffraction methods, and special projects. Letter grading.

111. Introduction to Materials Characterization B (Electron Microscopy). (4) Formerly numbered 111.) Lecture, four hours; outside study, eight hours. Characteristics of microstructure and microchemistry of materials; transmission electron microscopy; reciprocal lattice, electron diffraction, stereographic projection, direct observation of defects in crystals by scanning electron microscopy: emissive and reflective modes; chemical analysis; electron optics of both instruments. Concurrently scheduled with course 221L. Letter grading.

111L. Introduction to Materials Characterization B Laboratory. (2) Laboratory, four hours; outside study, two hours. Enforced requisite: course 111. Experimental techniques and analysis of materials through electron microscopy: evaluation of morphology, microstructure, and crystallinity of samples. Letter grading.


120. Physics of Materials. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: courses 104, 110 (or Chemistry 113A). Introduction to electrical, optical, and magnetic properties of solids. Free electron model, introduction to band theory and Schrödinger wave equation. Crystal bonding and lattice vibrations. Mechanisms and characterization of electrical conductivity, optical absorption, magnetic behavior, dielectric properties, and p-n junctions. Letter grading.

121. Materials Science of Semiconductors. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 120. Structure and properties of III-V and II-VI semiconductors. Electrical and optical properties, defect chemistry, and doping. Electronic materials analysis and characterization, including electrical, optical, and ion-beam techniques. Heterostructures, band-gap engineering, development of new materials for optoelectronic applications. Letter grading.

121L. Materials Science of Semiconductors Laboratory. (2) Lecture, 30 minutes; discussion, 30 minutes; laboratory, two hours; outside study, three hours. Enforced requisite: course 121. Experiments conducted on materials characterization, including measurements of contact resistance, dielectric constant, and thin film biaxial modulus and CTE. Letter grading.


130. Phase Relations in Solids. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 104. Summary of thermodynamic laws, equilibrium criteria, solution thermodynamics, and first order phase diagrams, glass transitions. Letter grading.

131. Diffusion and Diffusion-Controlled Reactions. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 130 or Chemistry 113A. Diffusion of atoms and vacancies in solids, nucleation and growth theory; precipitation from solid solution, eutectoid decomposition, design of heat treatment processes of alloys, growth of intermediate phases, gas-solid reactions, design of oxidation-resistant alloys, recrystallization, and grain growth. Letter grading.

131L. Diffusion and Diffusion-Controlled Reactions Laboratory. (2) Laboratory, two hours; outside study, four hours. Enforced corequisite: course 131. Design of heat-treating cycles and performing experiments to study interdiffusion, growth of intermediate phases, recrystallization, and grain growth in metals. Analysis of data. Comparison of results with theory. Letter grading.


140A. Materials and Engineering Design A. (3) Lecture, two hours; laboratory, two hours; outside study, five hours. Enforced requisites: two courses from 132, 150, 160. Explicit guidance among myriad materials available for design in engineering. Properties and applications of steels, nonferrous al-
ceramics and packaging; magnetic ceramics; ferroelectric ceramics and electro-optic devices; optical waveguide applications and designs. Letter grading.

CM163. Electrochemical Processes. (4) (Same as Chemical Engineering CM114.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: course 130 (or Mechanical and Aerospace Engineering 105A), Chemical Engineering 102B. Fundamentals of electrochemical reactions and applications to industrial electrochemical processes. Primary emphasis on fundamental approach to analyze electrochemical processes. Specific topics include electrochromic reactions on metal and semiconductors, electrodeposition, electrowetting, fuel cells, aqueous and nonaqueous batteries, solid-state electrochemistry. May be concurrently scheduled with course CM263. Letter grading.

170. Engaging Elements of Communication: Oral Communication. (2) Lecture, one hour; discussion, one hour; outside study, four hours. Comprehensive oral presentation and communication skills provided by building on strengths of individual personal styles in creation of positive interpersonal relations. Skill set prepares students for different types of academic and professional settings. Students for wide range of audiences. Learning environment is highly supportive and interactive as it helps students creatively develop and greatly expand expressiveness of their communication and presentation skills. Lecture grading.

171. Engaging Elements of Communication: Writing for Technical Community. (2) Lecture, one hour; discussion, one hour; outside study, four hours. Comprehensive technical writing skills on subjects specific to field of materials science and engineering. Students write review term paper in selected subject field of materials science and engineering from given set of journals. Selected literature through several crucial steps, including brainstorming, choosing title, coming up with outline, concise writing of abstract, conclusion, and final polishing. Other subjects include writing style, word choices, and grammar. Letter grading.

CM180. Introduction to Biomaterials. (4) (Same as Bioengineering CM178.) Lecture, three hours; discussion, two hours; outside study, seven hours. Requisites: course 104, or Chemistry 20A, 20B, and 20L. Engineering materials used in medicine and dentistry for repair and/or restoration of damaged natural tissues. Topics include relationships between material properties, surface chemistry, processing, and experimental details of physical vapor deposition. Letter grading.

188. Special Courses in Materials Science and Engineering. (4) Seminar, four hours; outside study, eight hours. Special topics in materials science and engineering for undergraduate students taught on experimental or temporary basis, such as those taught by resident and visiting faculty members. May be repeated once for credit with topic or instructor change. Letter grading.

194. Research Group Seminars: Materials Science and Engineering. (4) Seminar, four hours; outside study, eight hours. Designed for undergraduate students who are part of research group. Discussion of research methods and current literature in field of research or research group. May be repeated for credit. Letter grading.

200. Principles of Materials Science I. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: course 120. Lattice dynamics and thermal properties of solids, classical and quantized free electron theory, electrons in a periodic potential, transport in semiconductors, dielectric and magnetic properties of solids. Letter grading.


C211. Introduction to Materials Characterization B (Electron Microscopy). (4) (Formerly numbered 211.) Lecture, four hours; outside study, eight hours. Characterization of microstructure and microchemistry of materials; transmission electron microscopy; reciprocal lattice, electron diffraction, stereographic projections, direct observations of defects in crystals, replicas; scanning electron microscopy; emissive and reflective modes; chemical analysis; electron optics of both instruments. Concurrently scheduled with course C111. Letter grading.


M213. Cultural Materials Science I: Analytical Imaging and Documentation in Conservation of Materials. (4) (Same as Conservation M215.) Lecture, two hours; laboratory, two hours. Basic and advanced techniques on digital photography, computer-aided recording tools, and scientific imaging to determine and document condition (defects) and technological features of archaeological and ethnographic materials. Development of basic technical knowledge in imaging and photometrics technology and practical skills in conservation photo-documentation, analytical (for research) photography, and advanced imaging new imaging technologies. Letter grading.

214. Structure, Properties, and Deterioration of Materials: Rock Art, Wall Paintings, Mosaics. (2) (Formerly numbered M214.) Lecture, three hours. Recommended preparation: general chemistry and materials science. Introduction to materials and techniques of rock art, wall paintings (including painted surfaces on cement and composite decorative architectural surfaces), and mosaics. Archeological, historical, and ethnographic materials and techniques, pigments, colors, and binding media. Chemical, optical, and structural properties. Restoration and conservation between chemical, structural, and physical surfaces, treatment of scratches, tissue, substrates, crystalline morphology, and surface chemistry, structure (crystals, molecular arrangement, and microstructure), and properties explained using basic concepts from physics and chemistry. Intrinsic attributes and resistance to weathering, causes, sources, and mechanisms of deterioration (physical, chemical, and bio-chemical). Letter grading.

216. Science of Conservation Materials and Methods I. (4) (Formerly numbered M216.) Lecture, two hours; laboratory, two hours. Recommended requisite: laboratory safety fundamental concepts course by Office of Environment, Health, and Safety. Introduction to physical, chemical, and mechanical properties of conservation materials (employed for preservation of archaeological and cultural materials) and their aging characteristics. Science and application methods of traditional organic and inorganic systems and introduction to novel technology based on biomimetic processes and nanostructured materials. Letter grading.


222. Growth and Processing of Electronic Materials. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: courses 120, 131. Fabrication, processing, and properties of thin films used in microelectronics, semiconductors, and photonic processing. Topics include film deposition, interfacial properties, stress and strain, electromigration, phase changes and kinetics, reliability. Letter grading.

224. Deposition Technologies and Their Applications. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Examination of physics behind major of modern thin film deposition technologies based on vapor phase transport. Basic vacuum technology and gas kinetics. Deposition methods used in high-technology applications. Theory and experimental details of physical vapor deposition (PVD), chemical vapor deposition (CVD), plasma-enhanced chemical vapor deposition processes. Letter grading.


226. Si-CMOS Technology: Selected Topics in Materials Characterization. (4) Lecture, four hours; discussion, one hour; outside study, eight hours. Recommended preparation: Electrical Engineering 221B. Requisites: courses 130, 131, 200, 221, 222. Selected topics in materials science from modern Si-CMOS technology,
including technological challenges in high k/metal gate stacks, strained Si FETs, SOI and three-dimensional FETs, source/drain engineering including transient-enhanced, PoL M2.0, and metallization for ohmic contacts. Letter grading.


243C. Dislocations and Strengthening Mechanisms in Solids. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 143A. Elastic and plastic behavior of crystals, geometrical, mechanical, and physical aspects of yield, work hardening, and other strengthening. Letter grading.

246A. Mechanical Properties of Nonmetallic Crystalline Solids. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 143A. Materials and environmental factors affecting mechanical properties of nonmetallic crystalline solids, including atomic bonding and structure, atomic-scale defects, structural defects, thermal stresses, temperature, stress state, strain rate, size and surface conditions. Letter grading.


248D. Electronic and Optical Properties of Ceramics. (4) Lecture, four hours; discussion, one hour; outside study, four hours. Requisite: course 160. Prerequisites govern the electronic properties of ceramic single crystals and glasses and effects of processing and microstructure on these properties. Electronic conductance, ferroelectricity, and photochromism. Magnetic ceramics. Infrared, visible, and ultraviolet transmission. Unique application of ceramics. Letter grading.

247. Nanoscale Materials: Challenges and Opportunities. (4) Lecture, four hours; discussion, eight hours. Limited to graduate students. Literature studies of up-to-date subjects and their potential applications, including nanoscale materials and biomaterials. Letter grading.

248. Materials and Physics of Solar Cells. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Comprehensive introduction to materials and physics of photovoltaic cell, covering basic physics of semiconductors in photovoltaic devices, physical mechanisms of charge generation, characteristics and design of common types of solar cells, and approaches to increasing solar cell efficiency. Recent progress in solar cells, such as organic solar cell, thin-film solar cells, and multiple junction solar cells. Petition forms to increase student knowledge. Tour of research laboratory included. Letter grading.


251. Chemistry of Soft Materials. (4) Lecture, four hours. Introduction to organic soft materials, including essential basic organic chemistry and polymer chemistry. Topics include modern first-principles electronic structure calculations for various types of modern materials. Properties of electrons and interatomic bonding in materials, crystals, and liquids, with emphasis on practical methods for solving Schrödinger equation and using it to calculate physical properties such as elastic constants, equilibrium structures, bonding energies, vibrational frequencies, electronic band gaps and band structures, electrical properties of defects, surfaces, interfaces, and magnetism. Extensive hands-on experience with modern density-functional theory code. Letter grading.

272. Theory of Nanomaterials. (4) Lecture, four hours; outside study, eight hours. Strongly recommended requisite: course 200. Introduction to properties and applications of nanoscale materials, with emphasis on understanding of basic principles that distinguish nanomaterials (with feature size below 100 nm) from more common microstructured materials. Explanation of new phenomena that emerge only in very small systems, using simple concepts from quantum mechanics and thermodynamics. Topics include structure and electronic properties of quantum dots, wires, nanotubes, and multilayers, self-assembly on surfaces and in liquid solutions, mechanical properties of nanomaterials, molecular electronics, spintronics, and potential applications of quantum computing. Discussion of current and future directions of this rapidly growing field using examples from modern scientific literature. Letter grading.

M250. Introduction to Biomaterials. (4) (Same as Bioengineering CM274.) Lecture, three hours; discussion, two hours; outside study, seven hours. Requisites: course 104, or Chemistry 20A, 20B, and 20L. Engineering materials used in medicine, including overview of properties and characterizations, and real-life applications. Letter grading.

261. Risk Analysis for Engineers and Scientists. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Topics include definition and functional concepts of risk, sociotechnical context of risk assessment and risk management, perception and reality of risk, risk-informed decision-making, domains of application (safety, health, security, economy, and environment), risk communication, risk assessment, including overview of probability and statistics, how to identify risk scenarios, techniques modeling failures of complex systems (e.g., fault tree and event analysis), database and model integration and computational algorithms for risk calculation and identification of risk drivers, simulation approach to risk modeling, uncertainty analysis, examples of risk assessment of engineered systems (e.g., space and aviation, nuclear power, petrochemical plants), other applications (risk of medical procedures, financial risk, natural hazards risk). Letter grading.

M265A. Electrochemical Processes. (4) (Same as Chemical Engineering CM214.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 130 (or Mechanical and Aerospace Engineering 105A, 105B, 105BD). Fundamentals of electrochemistry and engineering applications to industrial electrochemical processes. Topics include electrochemical reactions on metal and semiconductor surfaces, electrodeposition, electroless deposition, electrolysis, fuel cells, aqueous and nonaqueous batteries, solid-state electronics. May be concurrently scheduled with course CM163. Letter grading.

270. Computer Simulations of Materials. (4) Lecture, four hours; outside study, eight hours. Preparation: basic knowledge of quantum mechanics. Recommended requisite: course 200. Introduction to modern first-principles electronic structure calculations for various types of modern materials. Properties of electrons and interatomic bonding in materials, crystals, and liquids, with emphasis on practical methods for solving Schrödinger equation and using it to calculate physical properties such as elastic constants, equilibrium structures, bonding energies, vibrational frequencies, electronic band gaps and band structures, electrical properties of defects, surfaces, interfaces, and magnetism. Extensive hands-on experience with modern density-functional theory code. Letter grading.

597A. Preparation for MS Comprehensive Exam. (1 to 4) Seminar, to be arranged. Limited to graduate students. Petition forms to arrange. Tutorial, to be arranged. Limited to graduate students. Seminars may be organized in advanced technical fields. If appropriate, field trips may be arranged. May be repeated with topic change. Letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprenticeship personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

596. Directed Individual or Tutorial Studies. (2 to 8) Tutorial, to be arranged. Limited to graduate materials science and engineering students. Petition forms to request enrollment may be obtained from assistant dean, Graduate Studies. Supervised investigation of independent technical problems. Letter grading.

597A. Preparation for MS Comprehensive Examination. (2 to 12) Tutorial, to be arranged. Limited to graduate materials science and engineering students. Reading and preparation for MS comprehensive examination. S/U grading.
Mathematics / 625

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Mary P. Greene, MS

Overview
Gauss called mathematics the “queen of the sciences.” It has provided powerful intellectual tools that have made possible tremendous advances in modern science and technology. The Department of Mathematics offers courses of study that introduce students to the fundamentals of mathematics and allow them to master the most important parts of the subject, both pure and applied. It leads doctoral students to the frontiers of mathematical research, where they can begin to push back those frontiers.

Undergraduate Study
In addition to its seven majors, the department also hosts the Mathematics/Economics Interdepartmental Program, which offers a Mathematics/Economics major.

Undergraduate Policies

Preliminary Examination in Mathematics

If students wish to enroll in Mathematics 1, 3A, 31A, or 31AL they must pass the Mathematics Diagnostic Test.

For specific information about the online test, refer to the Schedule of Classes or the department website; or contact the Mathematics Student Services Office, 6356 Mathematical Sciences.

Advanced Placement in Calculus

Students who have taken the Advanced Placement (AP) Calculus AB Test and obtained a score of 5 receive 4 units of credit and Mathematics 31A equivalency; those with a score of 4 receive 4 units of calculus and analytic geometry credit. They may petition for 31A equivalency or they may take course 31A or 31AL at UCLA, although they must still satisfy the course requisites (Mathematics Diagnostic Test). Students who take the BC Test and obtain a score of 5 receive 8 units of calculus and Mathematics 31A, 31B equivalency; those with a score of 4 receive 4 units of calculus and Mathematics 31A equivalency. They may petition for 31A equivalency or they may take courses 31A or 31AL at UCLA, although they must still satisfy the course requisites (Mathematics Diagnostic Test). Students receiving a score of 4 or lower on the AB examination, or 3 or lower on the BC examination, should consult with the undergraduate mathematics counselor prior to enrolling in a calculus course at UCLA.

Credit Limitations
Credit is given for at most one course in each of the following groups: (1) 3A, 31A, 31AL; (2) 3B, 31B, 31E; (3) 110A, 117; (4) 170A, 170E.
Courses from only one of the following statistics sequences may be applied toward any mathematics major: (1) Statistics 100A (or Mathematics 170A or 170E), 100B (or Mathematics 170S), 100C or (2) former Statistics 110A, 110B.

Mathematics 132 is not open for credit to students with credit for Physics 132.

Mathematics 151A is not open for credit to students with credit for Electrical and Computer Engineering 133A.

Mathematics 170A, 170E, and Statistics 100A are not open for credit to students with credit for Electrical and Computer Engineering 131A.

Mathematics 170S is not open for credit to students with credit for Statistics 100B.

Mathematics 174E is not open for credit to students with credit for Economics 141.

For lower-division mathematics courses, students may not take or repeat a course for credit if it is a prerequisite for a more advanced lower-division course for which they already have credit. This applies in particular to the repetition of courses (e.g., if students wish to repeat Mathematics 31B, they must do so before completing course 32B; if students wish to repeat Mathematics 3B or 31B or 32A, they must do so before completing course 33A).

For upper-division mathematics courses, students may not take or repeat a lower sequence course for credit if it is part of a sequence for which they already have credit. This applies in particular to the repetition of courses (e.g., if students wish to repeat Mathematics 131A, they must do so before completing course 131B or 131B(H)).

Students may not receive credit for both a course and the honors version of that course (e.g., they may not receive credit for both Mathematics 131A and 131AH).

Honors Courses

The department offers lower-division honors courses in calculus, and upper-division honors courses in algebra and analysis. The courses are intended for students (not necessarily mathematics majors) who desire a broad, comprehensive introduction to these topics.

Program in Computing Courses

Program in Computing 1 is designed for students who wish a broad, general introduction to the topic of computers and computation, but who have no prior experience in computing.

Courses 10A, 10B, and 10C provide an extensive introduction to programming, using the C++ language. Courses 16A, 16B, 20A, and 40A cover Python, Java, and Internet programming. They are of interest to majors in many fields, including those completing a specialization in Computing. Students should consult with their major department regarding enrollment in these courses, their relevance to their program, and suitability for use in fulfilling requisites.

Subject Matter Preparation Program for Single-Subject Credential in Mathematics

Students interested in obtaining a single-subject secondary school credential in mathematics should consult with a departmental counselor regarding the requirements for a waiver from the Mathematics California Subject Examination for Teachers (CSET), which is required by the California Commission on Teacher Credentialing. Students should meet with a departmental counselor as early in their undergraduate careers as possible because the program does require additional courses beyond the major requirements. See the Curtis Center website for details on teaching credential requirements. For additional information, contact the Education Department credentialing specialist at 310-825-8328.

Undergraduate Majors

Mathematics BS

The Mathematics major is designed for students whose basic interest is mathematics.

Learning Outcomes

The Mathematics major has the following learning outcomes:

• Strong mathematical content knowledge of single and multivariate differential and integral calculus, and differential equations
• Ability to synthesize material, solve problems, and think abstractly
• Familiarity with linear algebra, techniques of proof, and foundations of real analysis
• Ability to perform basic computer programming, especially in C++

Entry to the Major

Admission

Current UCLA students need to apply for the Mathematics major by filing a petition with the Student Services Office in 6356 Mathematical Sciences. All students are identified as Mathematics pre-majors until they satisfy the following minimum requirements for the major: (1) achieve grades of C or better in all pre-major mathematics sequenced courses (Mathematics 31A or 31AL, 31B, 32A, 32B, 33A, 33B); (2) achieve a minimum 2.5 grade-point average in the calculus sequence with no more than two repeats; (3) complete one 12-unit term in residence in regular session at UCLA, (4) be enrolled in UCLA regular session at the time of application, and (5) file a petition to declare the major before completing 160 quarter units.

Pre-major

Students entering UCLA directly from high school or first-term transfer students who want to declare the Mathematics pre-major at the time they apply for admission are automatically admitted to the pre-major.

First-Year Students

To enter the major, students must petition after they have completed the six sequenced courses with a 2.5 minimum overall grade-point average, have completed one 12-unit term in residence in regular session at UCLA, are enrolled in UCLA regular session at the time of application, and before completing 160 quarter units.

Transfer Students

Transfer applicants to the Mathematics major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of calculus for majors, one calculus-based physics (mechanics) course, one C++ programming course, and two courses from general chemistry for majors, economics, symbolic logic, and calculus-based physics.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

After satisfying the preparation for the major requirements, students need to petition to enter the major at the Student Services Office after completing one 12-unit term in residence in regular session at UCLA, and while enrolled in UCLA regular session at the time of application.

Requirements

Preparation for the Major


The Major

Required: Mathematics 110A, 110B, 115A, 120A, 131A, 131B, 132, and at least five elective courses from 106 through 199 and Statistics 100A through 102C.

Honors Program

The program entails taking a specified sequence of courses as part of the major requirements, completing an approved seminar offered by the Mathematics Department or submitting an original research project, and earning an overall GPA of at least 3.6 in approved upper-division and graduate mathematics courses.

Computing Specialization

Majors may select a specialization in Computing by (1) satisfying all the requirements for a bachelor’s degree in the specified major and (2) completing Mathematics 61 or 180, Program in Computing 10A, 10B, two courses from 10C, 15, 16A, 20A, 40A, and at least two courses from Mathematics 149 through 159, with a minimum grade of C- in each course and a combined grade-point average of at least 2.0. Students must petition for admission to this program and are advised to do so after they complete Program in Computing 10B (petitions should be filed in the Student Services Office).
Students graduate with a bachelor’s degree in their major and a specialization in Computing.

**Policies**

**Preparation for the Major**

Each course must be taken for a letter grade. The mathematics sequenced courses (Mathematics 31A or 31AL, 31B, 32A, 32B, 33A, 33B) are calculated separately from the other preparation for the major courses and must be completed with a minimum overall 2.5 grade-point average and a grade of C or better in each course. The other preparation courses must be completed with a minimum overall 2.0 grade-point average and a grade of C– or better in each course.

Repetition of more than two mathematics sequenced courses or of any mathematics sequenced course more than once results in automatic dismissal from the major.

**The Major**

Each course must be taken for a letter grade. The 12 courses must be completed with a minimum overall grade-point average of 2.0, with grades of C– or better in Mathematics 115A and 131A.

**Honors Program**

Students who wish to graduate with departmental honors should apply for admission to the honors program in the Student Services Office. They may apply any time after completing four courses from the calculus sequence or from upper-division mathematics courses with an overall grade-point average of 3.6 or better. Students completing the program are awarded honors at graduation; if they demonstrate exceptional achievement (i.e., at least a 3.8 GPA in upper-division mathematics courses taken for the major), they are awarded highest honors. Contact the department for more information.

**Applied Mathematics BS**

The Applied Mathematics major concerns applications of mathematics to the sciences, including the life, social and physical sciences, and engineering.

**Learning Outcomes**

The Applied Mathematics major has the following learning outcomes:

- Strong mathematical content knowledge of single and multivariate differential and integral calculus, and differential equations
- Ability to synthesize material, solve problems, and think abstractly
- Familiarity with linear algebra, techniques of proof, and foundations of real analysis
- Ability to perform basic computer programming, especially in C++

**Entry to the Major**

**Admission**

Current UCLA students need to apply for the Applied Mathematics major by filing a petition with the Student Services Office in 6356 Mathematical Sciences. All students are identified as Applied Mathematics pre-majors until they satisfy the following minimum requirements for the major:

1. Achieve grades of C or better in all pre-major mathematics sequenced courses (Mathematics 31A or 31AL, 31B, 32A, 32B, 33A, 33B).
2. Achieve a minimum 2.5 grade-point average in the calculus sequence with no more than two repeats.
3. Complete one 12-unit term in residence in regular session at UCLA. (4) be enrolled in UCLA regular session at the time of application, and (5) file a petition to declare the major before completing 160 quarter units.

**Pre-major**

Students entering UCLA directly from high school or first-term transfer students who want to declare the Applied Mathematics pre-major at the time they apply for admission are automatically admitted to the pre-major.

**First-Year Students**

To enter the major, students must petition after they have completed the six sequenced courses with a 2.5 minimum overall grade-point average, have completed one 12-unit term in residence in regular session at UCLA, are enrolled in UCLA regular session at the time of application, and before completing 160 quarter units.

**Transfer Students**

Transfer applicants to the Applied Mathematics major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of calculus for majors, two calculus-based physics courses, one C++ programming course, and one course from general chemistry for majors or calculus-based physics.

Refer to the [UCLA transfer admission guide](#) for up-to-date information regarding transfer selection for admission.

After satisfying the preparation for the major requirements, students need to petition to enter the major at the Student Services Office after completing one 12-unit term in residence in regular session at UCLA, and while enrolled in UCLA regular session at the time of application.

**Requirements**

**Preparation for the Major**

Required: Mathematics 31A or 31AL, 31B, 32A, 32B, 33A, 33B, Physics 1A, 1B, Program in Computing 10A, and one course from Chemistry and Biochemistry 20A, 20B, Physics 1C.

**The Major**

Required: Mathematics 115A, 131A, either 131B or 132, 142; two two-term sequences from two of the following categories: numerical analysis—courses 151A and 151B, probability and statistics—courses 170A and 170B, or Statistics 100A and 100B, differential equations—courses 134 and 135; four courses from 106 through 199 and Statistics 100A through 102C (appropriate courses from other departments may be substituted for some of the additional courses provided departmental consent is given before such courses are taken).

**Honors Program**

The program entails taking a specified sequence of courses as part of the major requirements, completing an approved seminar offered by the Mathematics Department or submitting an original research project, and earning an overall GPA of at least 3.6 in approved upper-division and graduate mathematics courses.

**Computing Specialization**

Majors may select a specialization in Computing by (1) satisfying all the requirements for a bachelor’s degree in the specified major and (2) completing Mathematics 61 or 180, Program in Computing 10A, 10B, two courses from 10C, 15, 16A, 20A, 40A, and at least two courses from Mathematics 149 through 159, with a minimum grade of C– in each course and a combined grade-point average of at least 2.0. Students must petition for admission to this program and are advised to do so after they complete Program in Computing 10B (petitions should be filed in the Student Services Office). Students graduate with a bachelor’s degree in their major and a specialization in Computing.

**Policies**

**Preparation for the Major**

Each course must be taken for a letter grade. The mathematics sequenced courses (Mathematics 31A or 31AL, 31B, 32A, 32B, 33A, 33B) are calculated separately from the other preparation for the major courses and must be completed with a minimum overall 2.5 grade-point average and a grade of C or better in each course.

Repetition of more than two mathematics sequenced courses or of any mathematics sequenced course more than once results in automatic dismissal from the major.

**The Major**

Each course must be taken for a letter grade. The 12 courses must be completed with a minimum overall grade-point average of 2.0, with grades of C– or better in Mathematics 115A and 131A.

**Honors Program**

Students who wish to graduate with departmental honors should apply for admission to the honors program in the Student Services Office. They may apply any time after completing four courses from the calculus sequence or from upper-division mathematics courses with an overall grade-point average of 3.6 or better. Students completing the program are awarded honors at graduation; if they demonstrate exceptional achievement (i.e., at least a 3.8 GPA in upper-division mathematics courses taken for the major), they are awarded highest honors. Contact the department for more information.
Data Theory BS

Learning Outcomes
The Data Theory major has the following learning outcomes:

- Understanding of mathematical and statistical bases of most common methods of data science
- Ability to explain in writing, with examples, how concepts of statistics and mathematics together solve real-world problems involving data
- Skillfully manage data
- Development, comparison, and testing of data-driven models to solve problems
- Understanding and explanation of variability when fitting and interpreting models of real-world systems
- Carrying out of reproducible data analysis using accepted practices of research community
- Written and verbal communication of findings of analyses
- Identification of areas of active research in data science
- Insightfully address problems concerning ethics of data use and storage, including data privacy and security
- Demonstrated mastery of concepts and skills of machine learning, modeling and supervised learning, dimension reduction and unsupervised learning, and deep learning
- Demonstrated familiarity with numerous software tools used in statistical and data science work and research
- Demonstrated knowledge of mathematical foundations, including pure and applied linear algebra, basic analysis, probability, and optimization theory
- Study and evaluation of proofs of mathematical and statistical results employed in data theory
- Work effectively in a team on a data science problem
- Demonstrated eligibility for graduate study in applied mathematical science or statistical science

Entry to the Major

Pre-major
Students entering UCLA directly from high school or first-term transfer students who want to declare the Data Theory pre-major at the time they apply for admission are automatically admitted to the pre-major. Students must visit the student services office of either the Mathematics Department or Statistics and Data Science Department in order to petition to enter the major. All students are identified as Data Theory pre-majors until they satisfy the following minimum requirements for the major.

First-Year Students
To enter the major, students must petition after they have completed the preparation for the major courses. Students who have an overall grade-point average (GPA) of at least 3.3 in the preparation for the major courses, and have completed all preparation for the major courses before the fall quarter of their third year at UCLA, will be admitted to the major.

Students whose overall GPA is between 2.7 and 3.3, or who fail to complete the preparation courses before the fall quarter of their third year, are admitted only if space is available. All students must petition before they have earned 160 units, or by the winter quarter of their junior year, whichever comes first. Only grades for courses that are taken at the University of California, including UC summer schools, are counted for this GPA computation.

Transfer Students
Transfer applicants to the Data Theory major are admitted to the pre-major. Applicants with 90 or more units must have completed the following by the end of the spring term prior to entry to UCLA: two years of calculus for physical science and/or engineering majors, one linear algebra course, one C++ programming course, one statistics course.

Transfer students must have completed all preparation for the major coursework, and must have passed Mathematics 42, 115A, and at least 4 units of upper-division coursework required for this major with at least a 3.3 GPA, in order to be eligible to petition to enter the major. Transfer students will be admitted to the major if they satisfy these requirements. Transfer students who fail to meet these criteria for automatic admission will be admitted only if resources allow. Transfer students must petition to enter the major no later than the spring quarter of their third year at UCLA.

Transfer students are admitted to the pre-major. Applicants with 90 or more units must have completed the following by the end of the spring term prior to entry to UCLA: two years of calculus for physical science and/or engineering majors, one linear algebra course, one C++ programming course, one statistics course.

Financial Actuarial Mathematics BS

Learning Outcomes
The Financial Actuarial Mathematics major has the following learning outcomes:

- Strong mathematical content knowledge of single and multivariate differential and integral calculus, and differential equations
- Demonstrated knowledge of how to synthesize material, solve problems, and think abstractly
- Familiarity with linear algebra, techniques of proof, and foundations of real analysis
- Working knowledge of probability and financial and insurance mathematics at the level needed to pass of the first three preliminary actuarial examinations by the Society of Actuaries
- Strong content knowledge of the fourth and fifth preliminary examinations.
- Familiarity with basic statistical analysis including probability distributions, random variables, survey sampling, testing, data summary, sums of squares principle, testing general linear hypothesis in regression, and inference procedures
- Ability to perform basic computer programming, especially in C++

Entry to the Major

Admission
Current UCLA students need to apply for the Financial Actuarial Mathematics major by filing a petition with the Student Services Office in
6356 Mathematical Sciences. All students entering UCLA directly from high school are pre-majors until they satisfy the following minimum requirements for the major: (1) achieve grades of C or better in all pre-major mathematics, economics, or accounting sequence courses (Mathematics 31A, 31B, 32A, 32B, 33A, 33B, Program in Computing 10A) with a minimum 2.5 grade-point average and no more than two repeats, (2) achieve grades of C or better in all pre-major economics courses (Economics 1, 2, 11, Management 1A, 1B) with a minimum 2.5 grade-point average and no more than one repeat, (3) complete one 12-unit term in residence in regular session at UCLA, (4) be enrolled in UCLA regular session at the time of application, and (5) file a petition to declare the major before completing 160 quarter units.

Pre-major

Students entering UCLA directly from high school or first-term transfer students who want to declare the Financial Actuarial Mathematics pre-major at the time they apply for admission are automatically admitted to the pre-major.

First-Year Students

To enter the major, students must petition after they have completed the six sequenced courses with a 2.5 minimum overall grade-point average, have completed one 12-unit term in residence in regular session at UCLA, are enrolled in UCLA regular session at the time of application, and before completing 160 quarter units.

Transfer Students

Transfer applicants to the Financial Actuarial Mathematics major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of calculus for majors, one C++ programming course, one microeconomic theory course, one macroeconomics course, and two terms of accounting principle.

Transfer credit for any of the above is subject to department approval; consult with an undergraduate counselor before enrolling in any courses for the major.

Pre-major students must petition for admission to this program and are advised to do so after they complete Program in Computing 10B (petitions should be filed in the Student Services Office). Students graduate with a bachelor’s degree in their major and a specialization in Computing.

Policies

Preparation for the Major

Each course must be taken for a letter grade. The economics preparation for the major courses (Economics 1, 2, 11, Management 1A) are calculated separately from the mathematics preparation for the major courses (Mathematics 11N or 42 or 61 or 70, 31A or 31AL, 31B, 32A, 32B, 33A, 33B, Program in Computing 10A, 10B or 16A).

The economics preparation courses must be completed with a minimum overall 2.5 grade-point average and a grade of C or better in each course, as must the mathematics preparation courses.

Preparation credit for any of the above is subject to department approval; consult with an undergraduate counselor before enrolling in any courses for the major.

Pre-major students must petition for admission to this program and are advised to do so after they complete Program in Computing 10B (petitions should be filed in the Student Services Office). Students graduate with a bachelor’s degree in their major and a specialization in Computing.

Entry to the Major

Admission

Current UCLA students need to apply for the Mathematics of Computation major by filing a petition with the Student Services Office in 6356 Mathematical Sciences. All students are identified as Mathematics of Computation pre-majors until they satisfy the following minimum requirements for the major: (1) achieve grades of C or better in all pre-major mathematics sequences courses (Mathematics 31A or 31AL, 31B, 32A, 32B, 33A, 33B), (2) achieve a minimum 2.5 grade-point average in the calculus sequence with no more than two repeats, (3) complete one 12-unit term in residence in regular session at UCLA, (4) be enrolled in UCLA regular session at the time of application, and (5) file a petition to declare the major before completing 160 quarter units.

Pre-major

Students entering UCLA directly from high school or first-term transfer students who want to declare the Mathematics of Computation pre-major at the time they apply for admission are automatically admitted to the pre-major.

First-Year Students

To enter the major, students must petition after they have completed the six sequenced courses with a 2.5 minimum overall grade-point average, have completed one 12-unit term in residence in regular session at UCLA, are enrolled in UCLA regular session at the time of application, and before completing 160 quarter units.

Transfer Students

Transfer applicants to the Mathematics of Computation major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of calculus for majors, one discrete structures course, two calculus-based physics courses, three programming courses, and one course from general chemistry for majors or calculus-based physics.

Preparation for the Major

Each course must be taken for a letter grade. Transfer credit is subject to department approval; consult with an undergraduate counselor before enrolling in any courses for the major.

To graduate, the ten Mathematics Department courses must be completed with an overall grade-point average of 2.0, with grades of C– or better in Mathematics 115A and 131A, as must the two elective courses.

Mathematics of Computation BS

The Mathematics of Computation major is for mathematics students who have a secondary interest in computing.

Learning Outcomes

The Mathematics of Computation major has the following learning outcomes:

- Strong mathematical content knowledge of single and multivariate differential and integral calculus, and differential equations
- Ability to synthesize material, solve problems, and think abstractly
- Familiarity with linear algebra, techniques of proof, and foundations of real analysis
- Ability to perform basic computer programming, especially in C++
The Major

Required: Eleven Mathematics Department courses, including Mathematics 115A, 131A, 131B or 132, 151A, 151B, and six courses from 106 through 199 and Statistics 100A through 101C; three upper-division computer science courses (12 units).

Honors Program

The program entails taking a specified sequence of courses as part of the major requirements, completing an approved seminar offered by the Mathematics Department or submitting an original research project, and earning an overall GPA of at least 3.6 in approved upper-division and graduate mathematics courses.

Policies

Preparation for the Major

Each course must be taken for a letter grade. The mathematics sequenced courses (Mathematics 31A or 31AL, 31B, 32A, 32B, 33A, 33B) are calculated separately from the other preparation for the major courses and must be completed with a minimum overall 2.5 grade-point average and a grade of C or better in each course. The other preparation courses must be completed with a minimum overall 2.0 grade-point average and a grade of C– or better in each course.

Repetition of more than two mathematics sequenced courses or of any mathematics sequenced course more than once results in automatic dismissal from the major.

The Major

Each course must be taken for a letter grade. The 14 courses must be completed with a minimum overall grade-point average of 2.0, with grades of C– or better in Mathematics 115A and 131A.

Honors Program

Students who wish to graduate with departmental honors should apply for admission to the honors program in the Student Services Office. They may apply any time after completing four courses from the calculus sequence or from upper-division mathematics courses with an overall grade-point average of 3.6 or better.

Students completing the program are awarded honors at graduation; if they demonstrate exceptional achievement (i.e., at least a 3.8 GPA in upper-division mathematics courses taken for the major), they are awarded highest honors. Contact the department for more information.

Mathematics/Applied Science BS

The Mathematics/Applied Science major is designed for students with a substantial interest in mathematics and its applications to a particular field. It is an individual major in that students, in consultation with a faculty adviser, design their own program. They may also select one of the established programs: mathematics/history of science plan or medical and life sciences plan. In the past, Mathematics/Applied Science majors have combined the study of mathematics with fields such as atmospheric and oceanic sciences, biochemistry, biology, chemistry, economics, geography, physics, psychology, and statistics.

Students interested in designing an individual program should meet with the undergraduate adviser, 6356 Mathematical Sciences, during their sophomore year. A proposed program is drawn up, then forwarded to the mathematics/applied science curriculum committee for approval. All programs must include the following preparation for the major and major courses.

Learning Outcomes

The Mathematics/Applied Science major has the following learning outcomes:

- Strong mathematical content knowledge of single and multivariate differential and integral calculus, and differential equations
- Familiarity with linear algebra, techniques of proof, and foundations of real analysis
- Ability to synthesize material, solve problems, and think abstractly
- Ability to perform basic computer programming, especially in C++
- Familiarity with basic statistical analysis including probability distributions, random variables, survey sampling, testing, data summary, sums of squares principle, testing general linear hypothesis in regression, and inference procedures

Entry to the Major

Admission

Current UCLA students need to apply for the Mathematics/Applied Science major by filing a petition with the Student Services Office in 6356 Mathematical Sciences. All students are identified as Mathematics/Applied Science pre-majors until they satisfy the following minimum requirements for the major:

1. (1) achieve grades of C or better in all pre-major mathematics sequenced courses (Mathematics 31A or 31AL, 31B, 32A, 32B, 33A, 33B), (2) achieve a minimum 2.5 grade-point average in the calculus sequence with no more than two repeats, (3) complete one 12-unit term in residence in regular session at UCLA, (4) be enrolled in UCLA upper-division Honors Collegium course with history of science, and (5) file a petition to declare the major before completing 160 quarter units.

Pre-major

Students entering UCLA directly from high school or first-term transfer students who want to declare the Mathematics/Applied Science pre-major at the time they apply for admission are automatically admitted to the pre-major.

First-Year Students

To enter the major, students must petition after they have completed the six sequenced courses with a 2.5 minimum overall grade-point average, have completed one 12-unit term in residence in regular session at UCLA, are enrolled in UCLA regular session at the time of application, and before completing 160 quarter units.

Transfer Students

Transfer applicants to the Mathematics/Applied Science major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of calculus for majors and one C++ programming course. Additional courses are required for each concentration plan.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

After satisfying the preparation for the major requirements, students need to petition to enter the major at the Student Services Office after completing one 12-unit term in residence in regular session at UCLA, and while enrolled in UCLA regular session at the time of application.

Requirements

Preparation for the Major

Required: Mathematics 31A or 31AL, 31B, 32A, 32B, 33A, 33B, Program in Computing 10A. Additional preparation, varying with the individual program, may be required.

The Major

Required: Fourteen courses, seven in the Mathematics Department selected from Mathematics 106 through 199 and seven upper-division courses in a related field selected from one or two other departments.

Mathematics/History of Science Plan

Preparation for the Major

Required: Mathematics 31A or 31AL, 31B, 32A, 32B, 33A, 33B, Program in Computing 10A, and three courses from History 2B, 3A through 3D.

The Major

Required: Eight mathematics courses, including Mathematics 106, 115A, 131A, 134, 170A, and three courses from 110A through 199; six outside courses to be selected from History 107, Physiological Science 100, and any upper-division Honors Collegium course with history of science/media content.

Medical and Life Sciences Plan

Preparation for the Major


The Major

Required: Seven mathematics courses, including Mathematics 115A, 131A, 134, 151A, 170A, 170B, and one course from 110A through 199 and Statistics 100B through 101C; six outside courses, including Neuroscience M101A, M101B, and M101C, and three courses from Biostatistics 100A, Chemistry and Biochemistry CM160A, Computer Science CM186, Ecology and Evolutionary Biology C115A, 133, 135, Life Sciences 107, Physiological Science 100, M135, and any additional upper-division course
from these fields with consent of the administering department and the Mathematics Department.

**Computing Specialization**

 Majors may select a specialization in Computing by (1) satisfying all the requirements for a bachelor’s degree in the specified major and (2) completing Mathematics 61 or 180, Program in Computing 10A, 10B, two courses from 10C, 15, 16A, 20A, 40A, and at least two courses from Mathematics 149 through 159, with a minimum grade of C– in each course and a combined grade-point average of at least 2.0. Students must petition for admission to this program and are advised to do so after they complete Program in Computing 10B (petitions should be filed in the Student Services Office). Students graduate with a bachelor’s degree in their major and a specialization in Computing.

**Policies**

**Preparation for the Major**

 Each course must be taken for a letter grade. The mathematics sequenced courses (Mathematics 31A or 31AL, 31B, 32A, 32B, 33A, 33B) are calculated separately from the other preparation for the major courses and must be completed with a minimum overall 2.5 grade-point average and a grade of C or better in each course. The other preparation courses must be completed with a minimum overall 2.0 grade-point average and a grade of C– or better in each course.

 Repetition of more than two mathematics sequenced courses or of any mathematics sequenced course more than once results in automatic dismissal from the major.

**History of Science Plan**

 Each course must be taken for a letter grade. The eight Mathematics Department courses must be completed with a minimum overall grade-point average of 2.0, with grades of C– or better in Mathematics 115A and 131A, as must the six outside courses from history, philosophy, or physiological science.

**Medical and Life Sciences Plan**

 Each course must be taken for a letter grade. The seven Mathematics Department courses must be completed with a minimum overall grade-point average of 2.0, with grades of C– or better in Mathematics 115A and 131A, as must the six outside courses.

**Mathematics for Teaching BS**

 The Mathematics for Teaching major is designed primarily for students planning to teach mathematics at the high school level. It provides exposure to a broad range of mathematical topics, especially those appropriate for the prospective teacher. Students planning to pursue graduate studies in mathematics or related fields are encouraged to enter the Mathematics, Applied Mathematics, or Mathematics of Computation major.

**Capstone Major**

 The Mathematics for Teaching major is a designated capstone major. In their senior year students complete a year-long course sequence that culminates in a model lesson presentation, paper, and portfolio. Through their capstone work, students demonstrate their familiarity with research and current issues in mathematics education, as well as their capacities to problem solve; reason quantitatively, geometrically, and algebraically; construct viable arguments; critique others’ reasoning; and use tools strategically.

**Learning Outcomes**

 The Mathematics for Teaching major has the following learning outcomes:

- Strong mathematical content knowledge
- Sound theoretical and practical background for mathematics expected to be taught in secondary schools
- Understanding of the importance of mathematical thinking to design teaching to imbue students with a problem-solving and analytical spirit
- Familiarity with pedagogical research and ability to apply it to classroom work
- Ability to effectively plan lessons
- Preparation and experience in different modes of instruction
- Ability to use mathematical sophistication to shape lessons

**Entry to the Major**

**Admission**

 Current UCLA students need to apply for the Mathematics for Teaching major by filing a petition with the Student Services Office in 6356 Mathematical Sciences. All students are identified as Mathematics for Teaching pre-majors until they satisfy the following minimum requirements for the major: (1) achieve grades of C or better in all pre-major mathematics sequenced courses (Mathematics 31A, 31B, 32A, 32B, 33A, 33B); (2) achieve a minimum 2.5 grade-point average in the calculus sequence with no more than two repeats; (3) complete one 12-unit term in residence in regular session at UCLA; (4) be enrolled in UCLA regular session at the time of application, and (5) file a petition to declare the major before completing 160 quarter units.

**Pre-major**

 Students entering UCLA directly from high school or first-term transfer students who want to declare the Mathematics for Teaching pre-major at the time they apply for admission are automatically admitted to the pre-major.

**First-Year Students**

 To enter the major, students must petition after they have completed the six sequenced courses with a 2.5 minimum overall grade-point average, have completed one 12-unit term in residence in regular session at UCLA, are enrolled in UCLA regular session at the time of application, and before completing 160 quarter units.

**Transfer Students**

 Transfer applicants to the Mathematics for Teaching major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of calculus for majors, one discrete structures course, one C++ programming course, and three courses from calculus-based physics, general chemistry for majors, and computing.

 Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

 After satisfying the preparation for the major requirements, students need to petition to enter the major at the Student Services Office after completing one 12-unit term in residence in regular session at UCLA, and while enrolled in UCLA regular session at the time of application.

**Requirements**

**Preparation for the Major**

 Required: Mathematics 31A or 31AL, 31B, 32A, 32B, 33A, 33B, 61, Physics 1A or 5A, Program
in Computing 10A, and two courses from Chemistry and Biochemistry 20A, 20B, Physics 1B, 1C, 5B, 5C, Program in Computing 10B through 97.

The Major

Required: Mathematics 106, 110A or 117, 115A, 120A or 123, 131A, 170A or Statistics 100A, Statistics 100B, one course from Mathematics 110B through 191H or Statistics 100C, one course from Mathematics 131B through 136, one course from 142 through 167, and a capstone series in the senior year (courses 105A, 105B, 105C).

Computing Specialization

Majors may select a specialization in Computing by (1) satisfying all the requirements for a bachelor’s degree in the specified major and (2) completing Mathematics 61 or 180, Program in Computing 10A, 10B, two courses from 10C, 15, 16A, 20A, 40A, and at least two courses from Mathematics 149 through 159, with a minimum grade of C– in each course and a combined grade-point average of at least 2.0. Students must petition for admission to this program and are advised to do so after they complete Program in Computing 10B (petitions should be filed in the Student Services Office). Students graduate with a bachelor’s degree in their major and a specialization in Computing.

Policies

Preparation for the Major

Each course must be taken for a letter grade. The mathematics sequenced courses (Mathematics 31A or 31AL, 31B, 32A, 32B, 33A, 33B) are calculated separately from the other preparation for the major courses and must be completed with a minimum overall 2.5 grade-point average and a grade of C or better in each course. The other preparation courses must be completed with a minimum overall 2.0 grade-point average and a grade of C– or better in each course. Repetition of more than two mathematics sequenced courses or of any mathematics sequenced course more than once results in automatic dismissal from the major.

The Major

Each course must be taken for a letter grade. The 13 courses must be completed with a minimum overall grade-point average of 2.0, with grades of C– or better in Mathematics 115A and 131A.

Undergraduate Minors

Mathematics Minor

The Mathematics minor is designed to provide students with the opportunity to widen their background and general comprehension of the role of mathematics in various disciplines.

Admission

To enter the minor, students must have completed all of the lower-division minor courses with grades of C or better (an overall grade-point average of 2.0 or better) and at least one upper-division mathematics course.

The Minor

Required Lower-Division Courses (12 units): Mathematics 32A, 33A, 33B.

Required Upper-Division Courses (20 units): At least five courses (20 units) selected from Mathematics 106 through 199.

Policies

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade. Students must complete all lower-division courses with grades of C or better. Upper-division courses must have an overall grade-point average of 2.0 or better that is calculated separately from the lower-division courses. Successful completion of the minor is indicated on the transcript and diploma.

Mathematics for Teaching Minor

The Mathematics for Teaching minor is designed for students majoring in fields other than mathematics who plan to teach secondary mathematics after graduation. The minor recognizes completion of requisite coursework for the Joint Mathematics Education Program and also prepares students for the contents of the California Subject Examination for Teachers (CSET). Post-bachelor credentialing programs will see students with this minor have taken coursework on secondary mathematics from an advanced standpoint that is recommended by the Conference Board of the Mathematical Sciences and the California Commission on Teacher Credentialing. This minor is not open to students in any Mathematics Department major.

Admission

To enter the minor, students must have completed Mathematics 115A with a grade of C or better. If Mathematics 115A was not completed at UCLA, students must show proof that they completed an equivalent course with a grade of C or better.

The Minor

Required Upper-Division Courses (29 units): Mathematics 105A, 105B, 105C, 110A or 117, 115A, 120A or 123, 131A.

Policies

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade with a grade of C– or better in each, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Majors

Mathematics MA, CPhil, PhD

Requirements

Offical, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Mathematics MAT

Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Mathematics

Lower-Division Courses


3A. Calculus for Life Sciences Students. (4) Lecture, three hours; discussion, one hour. Preparation: three and one half years of high school mathematics (including trigonometry). Enforced requires: successful completion of Mathematics Diagnostic Test (score of 48 or better) or course 1 with grade of C– or better. Not open for credit to students with credit in another calculus sequence. Modeling with functions, limits, and derivatives, decisions and optimization in biology, derivative rules and tools. P/NP or letter grading.

3B. Calculus for Life Sciences Students. (4) Lecture, three hours; discussion, one hour. Requisite: course 3A with grade of C– or better. Not open for credit to students with credit for course 31B. Applications of differentiation, integration, differential equations, linear models in biology, phase lines and classifying equilibria. Trigonometric functions, bifurcations. P/NP or letter grading.

3C. Ordinary Differential Equations with Linear Algebra for Life Sciences Students. (4) Lecture, three hours; discussion, one hour. Requisite: course 3B with grade of C– or better. Multivariable modeling, matrices and vectors, eigenvalues and eigenvectors, linear and nonlinear systems of differential equations, probabilistic applications of integration. P/NP or letter grading.

11N. Gateway to Mathematics: Number Theory. (4) Lecture, three hours; discussion, one hour. Requisites: courses 31A, 31B. Introductory number theory course for freshmen and sophomores. Topics include prime number theory and cryptographic applications, factorization theory (in integers and Gaussian integers), Pythagorean triples, Fermat descent (for sums of squares and Fermat quartic), Pell’s equation, and Diophantine approximation. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.
31A. Differential and Integral Calculus. (4) Lecture, three hours; discussion, one hour. Preparation: at least three and one-half years of high school mathematics (including trigonometry). Requisite: successful completion of Mathematics Diagnostic Test or course 1 with grade of C– or better. Differential and integral calculus; applications; introduction to integration. P/NP or letter grading.

31BH. Integration and Infinite Series (Honors). (4) Lecture, three hours; discussion, one hour. Enforced requisite: course 31A with grade of B or better. Honors course parallel to course 31B. P/NP or letter grading.

31E. Calculus for Economics Students. (4) Lecture, three hours; discussion, one hour. Enforced requisite: course 31A with grade of C– or better. Not open for credit to students with credit for course 3B, 3C, or 31B. Calculus for applications to economics. Partial differentiation, implicit functions, exponential and logarithmic functions, extreme optimization, constrained optimization. P/NP or letter grading.

32A. Calculus of Several Variables. (4) Lecture, three hours; discussion, one hour. Enforced requisite: course 31A with grade of C– or better. Introduction to differential calculus of several variables, vector field theory; P/NP or letter grading.

32AH-32BH. Calculus of Several Variables (Honors). (4-4) Lecture, three hours; discussion, one hour. Enforced requisite: course 32A with grade of B or better; for 32BH: courses 31B and 32A, with grades of B or better. Honors sequence parallel to courses 32A, 32B, P/NP or letter grading.

32B. Calculus of Several Variables. (4) Lecture, three hours; discussion, one hour. Enforced requisites: courses 31B and 32A, with grades of C– or better. Introduction to the calculus of several variables, line and surface integrals. P/NP or letter grading.

M32T. Essential Calculus for Mathematical Biologists. (4) (Same as Computational and Systems Biology M32 and Life Sciences M32) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 30A, 30B. Not open to students with credit for course 31A, 31B, 32A, or 32B. Designed for life sciences students. Methods and results of single and multivariable calculus essential for quantitative training in biology. Limits, differentiation (single and several variables), optimization, integration and methods of integration, Taylor polynomials and applications to approximation, Taylor series, power series, vector valued functions, gradients, and Lagrange multipliers. P/NP or letter grading.

33A. Linear Algebra and Applications. (4) Lecture, three hours; discussion, one hour. Enforced requisite: course 3B or 31B or 32A with grade of C– or better. Introduction to linear algebra: systems of linear equations, matrix algebra, linear independence, subspaces, bases and dimension, orthogonality, least-squares approximations, eigenvalues and eigenvectors, matrix diagonalization, and symmetric matrices. P/NP or letter grading.

33AH. Linear Algebra and Applications (Honors). (4) Lecture, three hours; discussion, one hour. Enforced requisite: course 3B or 31B or 32A with grade of B or better. Honors course parallel to course 33A. P/NP or letter grading.

33B. Differential Equations. (4) Lecture, three hours; discussion, one hour. Enforced requisite: course 31B with grade of C– or better. Highly recommended: course 32B. Differential equations of second-order, linear differential equations with constant coefficients; power series solutions; linear systems. P/NP or letter grading.

42. Introduction to Data-Driven Mathematical Modeling. (4) Lecture, three hours; discussion, one hour. Requisites: courses 31A, 31B, 32A, 32B, 33A, one statistics course from Statistics 10 or 12, one programming course from Computer Science 10A, 10B, 10E, 67A, 67B, 67E, and 70A. Data-driven mathematical modeling involving correlation of phenomena from various applications, from experimentation to formulation of data visualization, nondimensionalization and order-of-magnitude physics, introduction to discrete and continuous dynamical systems, and introduction to discrete and continuous stochastic models. Examples drawn from many fields and practice problems from Mathematical Contest in Modeling. P/NP or letter grading.

61. Introduction to Discrete Structures. (4) Lecture, three hours; discussion, one hour. Requisites: courses 31A or 32A, 31B, 32B, 33A. Introduction to discrete mathematics, including sets and relations, permutations and combinations, graphs and trees, algorithms and formal language theory. P/NP or letter grading.

70. Introduction to Probability. (4) Lecture, three hours; discussion, one hour. Requisites: courses 31A, 31B, 32A, 32B, 33A. Introduction to probability through applications and examples. Topics include laws of large numbers, statistical independence, Bayes’ rule, continuous and discrete random variables, jointly distributed random variables, multivariate normal and conditional distributions. In-depth discussion of betting schemes in gambling, occurrence of rare events, coincidences, and statistical predictions. P/NP or letter grading.

73XP. Key Issues in K-12 Mathematics. (3) Formerly numbered 73SCL). Seminar, two hours; fieldwork, two hours. Introduction to K-12 mathematics activity in U.S. Cultivation of interest in teaching through exploration of sequences of mathematical content and habits of mind taught in K-12. Analysis of sequences of topics in current California State Standards in Mathematics (CCSS-M), mathematical structures that underlie these sequences, and cognitive aspects of learning mathematics with pre-service and practicing mathematician’s habits of mind outlined in CCSS-M (including proof and mathematical modeling), and effective strategies for teaching mathematics to diverse student populations. Taught in mathematics classroom arranged by Cal Teach program. P/NP grading.

74XP. Mathematics and Pedagogy for Teaching Elementary Mathematics. (3) (Formerly numbered 74SCL). Seminar, two hours; fieldwork, two hours. Development of professional mathematical and pedagogical understandings required to teach California’s K-5 mathematics curriculum. Exploration of K-5 mathematics, practice of effective teaching strategies for all learners, and discussion of current research and standards in mathematics education. Fieldwork in local mathematics classrooms (observation and presenting lesson plan) arranged by Cal Teach program. P/NP grading.

75XP. Mathematics and Pedagogy for Teaching Middle School Mathematics. (3) Seminar, two hours; off-campus classroom observation and participation, two hours. Facilitating development of professional mathematical and pedagogical understandings required to teach California middle school mathematics curriculum. Exploration of topics in grades six through eight. Includes personal and pedagogical reflective practice with effective teaching strategies for all learners, and discussion of current research and standards in mathematics education. Clinical practice in local middle school classrooms arranged by Cal Teach program. P/NP grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

90HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics of greater depth. Dependent readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grade only.

94. Mathematical Outreach: Explorations of Mathematics in the Physical World. (6) Lecture, twelve hours; discussion one hour. Preparation: three years of high school mathematics (to algebra II), some basic familiarity with computers. Uses inquiry-based mathematical modeling as a tool for understanding dynamics of physical systems and chemical processes. Fundamental concepts of single-variable calculus and models of dynamical processes in physics, chemistry, and other subjects in which quantities change with time. Use of computer program C++ for problem solving, plotting, and dynamical simulation in the laboratory. Preparation of correlation of phenomena from various applications, from experimentation to formulation of data visualization, nondimensionalization and order-of-magnitude physics, introduction to discrete and continuous dynamical systems, and introduction to discrete and continuous stochastic models. Examples drawn from many fields and practice problems from Mathematical Contest in Modeling. P/NP or letter grading.

95. Transition to Upper-Division Mathematics. (4) Lecture, three hours; discussion, one hour. Enforced requisites: courses 32A, 32B. Not open for credit to students with credit for course 131A or 132. Transition to rigorous methods of proof-based upper-division mathematics courses. Basic logic; structure of mathematical proofs; sets, functions, and cardinality; natural numbers and induction; construction of real numbers; topology of real numbers; sequences and convergence; continuity. May not be applied toward major requirements. P/NP or letter grading.

97. Variable Topics in Mathematics. (4) Lecture, three hours; discussion, one hour. Study of selected topics in mathematics at introductory level. P/NP or letter grading.

98XA. PEERS Collaborative Learning Workshops for Life Sciences Majors. (1) Laboratory, three hours. Corequisite: associated undergraduate lecture course in mathematics for life sciences majors. Limited to Program for Excellence in Education and Research in Sciences (PEERS) students. Introduction to intuition and problem-solving skills in collaborative learning environment. May be repeated four times, but only 1 unit may be applied toward graduation. P/NP grading.

98XB. PEERS Collaborative Learning Workshops for Physical Sciences and Engineering Majors. (1) Laboratory, three hours. Corequisite: associated undergraduate lecture course in mathematics for physical sciences and engineering majors. Limited to Program for Excellence in Education and Research in Science (PEERS) students. Development of intuition and problem-solving skills in collaborative learning environment. May be repeated four times, but only 1 unit may be applied toward graduation. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

General and Teacher Training

100. Problem Solving. (4) Lecture, three hours. Requisites: course 31B with grade of C– or better. Problem solving techniques and mathematical modeling useful as preparation for Putnam Examination and similar competitions. Continued fractions, inequalities, modular arithmetic, closed form evaluation of sums and products.

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current research for teaching secondary school mathematics. May be repeated for maximum of 12 credits. P/NP or letter grading.

121. Introduction to Topology. (4) Requisite: course 131A. Metric and topological spaces, completeness, compactness, connectedness, functions, continuity, homeomorphisms, topological properties.


Analysis


131AH-131BH. Analysis (Honors). (4–4) Lecture, three hours; discussion, one hour. Requisite for course 131AH: courses 32B and 33B, with grades of B or better. Recommended: course 115A. Honors sequence parallel to courses 131A, 131B. P/NP or letter grading.

131C. Topics in Analysis. (4) Lecture, three hours; discussion, one hour. Requisites: courses 131A, 131B. Advanced topics in analysis, such as Lebesgue integral, integration on manifolds, harmonic analysis. Content varies from year to year. May be repeated by credit by petition.

132. Complex Analysis for Applications. (4) Lecture, three hours; discussion, one hour. Requisite: courses 32B, 33B. Introduction to basic formulas and calculations of complex analysis of one variable relevant to applications. Topics include Cauchy/Plancherel formulas, Cauchy integral formula, power series expansion, contour integrals, residue calculus.

132H. Complex Analysis (Honors). (4) Lecture, three hours; discussion, one hour. Requisites: courses 32B, 33B, and 131A, with grades of B or better. Specifically designed for students who have strong commitment to pursue graduate studies in mathematics. Introduction to complex analysis, with more emphasis on proofs. Honors course parallel to course 132. P/NP or letter grading.

133. Introduction to Fourier Analysis. (4) Lecture, three hours; discussion, one hour. Requisites: courses 33B, 33A, 131A. Fourier series, Fourier transform in several variables, and several applications. Applications, in particular, to solving differential equations. Fourier inversion formula, Plancherel theorem, convergence of Fourier series, convolution. P/NP or letter grading.


136. Partial Differential Equations. (4) Lecture, three hours; discussion, one hour. Requisites: courses 33A, 33B. Linear partial differential equations, boundary and initial value problems; wave equation, heat equation, and Laplace equation; separation of variables; trigonometric expansions; selected topics, as method of characteristics for nonlinear equations.

Applied Mathematics

142. Mathematical Modeling. (4) Lecture, three hours; discussion, one hour. Requisites: courses 32B, 33B. Introduction to fundamental principles and spirit of applied mathematics. Emphasis on manner in which mathematical models are constructed for physical problems. Illustrations from many fields of endeavor, such as physical sciences, biology, economics, and traffic dynamics.

146. Methods of Applied Mathematics. (4) Lecture, three hours; discussion, one hour. Requisites: courses 32B, 33B. Integral equations, Green's function, and calculus of variations. Selected applications from control theory, optics, dynamical systems, and other engineering problems. P/N or letter grading.

M148. Experience of Data Science. (4) (Same as Statistics M148) Lecture, four hours. Requisites: courses 118, 131A, 156 or Statistics 101C, 170S or Statistics 100B, Statistics 101A. Students solve real data science problems for community- or campus-based clients. Students work in small groups with faculty member and client to frame client's question in a data science context, using mathematical models, analyzing data, and reporting results. Students may elect to undertake research on foundations of data science, studying advanced topics and writing senior thesis with discussion of findings or survey of literature on chosen foundational topic. Development of collaborative skills, communication principles, and discussion of ethical issues. Letter grading.


151AH. Experience of Data Science. (4) Lecture, four hours. Requisites: courses 118, 131A, 156 or Statistics 101C, 170S or Statistics 100B, Statistics 101A. Students solve real data science problems for community- or campus-based clients. Students work in small groups with faculty member and client to frame client's question in a data science context, using mathematical models, analyzing data, and reporting results. Students may elect to undertake research on foundations of data science, studying advanced topics and writing senior thesis with discussion of findings or survey of literature on chosen foundational topic. Development of collaborative skills, communication principles, and discussion of ethical issues. Letter grading.


151AH. Experience of Data Science. (4) Lecture, four hours. Requisites: courses 118, 131A, 156 or Statistics 101C, 170S or Statistics 100B, Statistics 101A. Students solve real data science problems for community- or campus-based clients. Students work in small groups with faculty member and client to frame client's question in a data science context, using mathematical models, analyzing data, and reporting results. Students may elect to undertake research on foundations of data science, studying advanced topics and writing senior thesis with discussion of findings or survey of literature on chosen foundational topic. Development of collaborative skills, communication principles, and discussion of ethical issues. Letter grading.


151AH. Experience of Data Science. (4) Lecture, four hours. Requisites: courses 118, 131A, 156 or Statistics 101C, 170S or Statistics 100B, Statistics 101A. Students solve real data science problems for community- or campus-based clients. Students work in small groups with faculty member and client to frame client's question in a data science context, using mathematical models, analyzing data, and reporting results. Students may elect to undertake research on foundations of data science, studying advanced topics and writing senior thesis with discussion of findings or survey of literature on chosen foundational topic. Development of collaborative skills, communication principles, and discussion of ethical issues. Letter grading.


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Science 180. Graphs, greedy algorithms, divide and conquer algorithms, dynamic programming, network flow. Emphasis on designing efficient algorithms useful in diverse areas such as bioinformatics and allocation of resources. P/NP or letter grading.


Special Studies

188A. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.


188C. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced requisite: course 188B. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE 883 course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate seminar course in modern mathematics. Exploration of topics greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

190HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

203. Master’s Linear Algebra. (4) Lecture, four hours; discussion, one hour. Rigorous treatment of fundamental results of pure and applied linear algebra over fields. Application to cryptography. Preparation for linear algebra portion of UCLA Mathematics Basic Examination that is required of MA and PhD students. S/U or letter grading.

204. Master’s Analysis. (4) Lecture, four hours; discussion, one hour. Rigorous treatment of fundamental results of pure and applied linear algebra over fields. Application to cryptography. Preparation for linear algebra portion of UCLA Mathematics Basic Examination that is required of MA and PhD students. S/U or letter grading.

Number Theory

205A-205B-205C. Number Theory. (4–4–4) Lecture, three hours. Requisites: courses 210A, 246A. Algebraic number theory, including ideal theory, valuations, local fields, cyclotomic fields. Introduction to classical field theory, analytic number theory, L-functions and class number formulas, and modular forms. S/U or letter grading.


207A-207B-207C. Topics in Number Theory. (4–4–4) Lecture, three hours. Admission to analysis on GL(1) and GL(2), especially Tate thesis and Hecke theory, automorphic representations. Special values of L-functions and p-adic L-functions, arithmetic theory of modular forms, advanced topics in analytic number theory. Arithmetic geometry, especially of modular curves. S/U or letter grading.


M209. Cryptography. (4) (Same as Computer Science M282A) Lecture, four hours; outside study, eight hours. Introduction to theory of cryptography, stressing rigorous definitions and proofs of security. Topics include notations of basic principles, advanced cryptosystems, domain-specific principles based on current education research, assist
Algebra

210A-210B-210C. Algebra. (4–4–4) Requisites: courses 110A, 110B, 110C. Students with credit for courses 110B and/or 110C cannot receive MA degree credit for courses 210B and/or 210C. Group theory, including the theory of rings and Jordan/Hermitian/Riemannian forms. Groups and rings, ideals, factorization theory in integral domains, modules over principal ideal rings, Galois theory of fields, multilinear algebra, structure of algebras.

211. Structure of Rings. (4) Requisite: course 210A. Radical, irreducible modules and primitive rings, rings and algebras with minimum condition.


212B. Homological Algebra. (4) Lecture, three hours. Requisites: courses 210A, 210B, 210C, 212A. Advanced topics in modern homological algebra, such as triangulated categories, differential graded algebras as dg-categories, tilting theory and applications of group cohomology to representation theory, stack categories and modular representation theory, and other current topics. S/U or letter grading.

213A-213B. Theory of Groups. (4–4) Requisite: course 210A. Topics include representation theory, transfer in Abelian groups, free products and presentations of groups, soluble and nilpotent groups, classical groups, algebraic groups.


M217. Geometry and Physics. (4) (Same as Physics M236.) Lecture, three hours. Interdisciplinary course on topics at interface between mathematics and physics, quantum fields and superstrings and mathematics of differential and algebraic geometry. Topics include supersymmetry, Seiberg/Witten theory, conformal field theory, Calabi/You manifold, mirror symmetry and duality, integrable systems. S/U grading.


218C. Topics in Discrete Mathematics. (4) Lecture, three hours. Emphasis on algebraic and Jordan/Hermitian/Riemannian methods and character methods, and applications of group cohomology to representation theory, stack categories and modular representation theory, and other current topics. S/U or letter grading.

Logic and Foundations

220A-220B-220C. Mathematical Logic. (4–4–4) Lecture, three hours. Requisite: course M114S. Fundamental methods and results in mathematical logic, using mathematical methods to reason about existence or nonexistence of proofs and computations in many different settings. Topics include compactness theorem, saturation of models, completeness and incompleteness theorems of Godel, Turing computability and degrees, recursion in Baire space, Zermelo-Fraenkel axioms, universe of constructible sets, and related equiconsistency results in set theory. S/U or letter grading.

222A-222B. Lattice Theory and Algebraic Systems. (4–4) Lecture, three hours. Requisite: course 210A. Partially ordered sets, lattices, distributivity, modularity; completeness; interplay between combinatorics, topology, and logic; algebraic systems, congruence lattices, subdirect decomposition, congruence lattices, equationable bases, applications to lattices.

223C. Topics in Computability Theory. (4) Lecture, three hours. Requisites: courses 220A, 220B. Degrees of unsolvability, recursively enumerable sets; undecidable theories; inductive definitions, admissible sets and ordinals; recursion in higher types; recursion and complexity. Topics vary from year to year. May be repeated for credit with consent of instructor. S/U or letter grading.

223D. Topics in Descriptive Set Theory. (4) Lecture, three hours. Requisites: courses 220A, 220B. Classical and effective results on Borel and projective sets; infinitary games of perfect information and principle of determinacy; consequences of determinacy, including periodicity, structure theory of pointclasses, and partition properties. Topics vary from year to year. May be repeated for credit with consent of instructor. S/U or letter grading.

223M. Topics in Model Theory. (4) Lecture, three hours. Requisites: courses 220A, 220B, 220C. Classical and effective results on Borel and projective sets; infinitary games of perfect information and principle of determinacy; consequences of determinacy, including periodicity, structure theory of pointclasses, and partition properties. Topics vary from year to year. May be repeated for credit with consent of instructor. S/U or letter grading.

Geometry and Topology

225A. Differential Topology. (4) Lecture, three hours. Focus on differential topology, including topics such as smooth manifolds, vector fields and integral curves, Sard theorem, function spaces of polynomials and tensor product methods, eigenvalues of graphs and their application, combinatorial Nullstellensatz and Chevalley/Warning theorem. May be repeated for credit with consent of instructor. S/U or letter grading.
Functional Analysis


255B-255C. Topics in Functional Analysis. (4) Requisite: course 255A. Topics include Banach algebras, operators on Banach and Hilbert space, semigroups of operators, linear topological vector spaces, and other related remarks. Cauchy integral formula and residue calculus in a complex course.


Applied Mathematics


266D-266E. Applied Differential Equations. (4) Requisites: courses 266A, 266B, 266C. Advanced topics in linear and nonlinear partial differential equations, with emphasis on energy estimates, numerical methods, and applications to fluid mechanics. Additional topics include dispersive waves, systems with multiple time scales, and applications to fluid mechanics.

267A. Tensor Analysis. (4) Requisite: course 268A. Tensor analysis in Euclidean space and its applications to geometry and differential equations. Topics may vary from year to year. May be repeated for credit by petition.


271D. Wave Mechanics. (4) General concepts of mechanical systems (states, space-time, logic, etc.). Classical and quantum examples. Correspondence principle.


272B. Mathematical Aspects of Fluid Mechanics. (4) Lecture, three hours. Requisite: course 272A. Review of basic theory of moving continua, fluid equations, similarity solutions, WKB theory created by slowly moving bodies, flows where viscosity is negligible, vortices, boundary layers and their separation, water waves, ship waves, compressional waves, shock waves, turbulence theory (overview).


273C. Optimization and Calculus of Variations: Numerical Optimization. (4) Lecture, three hours. Derivation, analysis, and implementation of numerical methods for constrained and unconstrained optimization problems of variety of types and with data at different scales. S/U or letter grading.


Probability and Statistics


275E. Stochastic Particle Systems. (4) Lecture, three hours. Requisite: course 275C. Interacting particle systems, including contact process, stochastic Ising model, and exclusion processes; percolation theory. S/U or letter grading.

276. Topics in Network Science. (4) Lecture, three hours. Requisites: courses 115A, 170A. Interesting and popular areas of network science. Topics vary from year to year and may include dynamical processes on networks, structure of social networks, time-dependent networks, multilayer networks, applications of networks, data analysis in networks, spatial networks, and others. Discussion of recent review articles and proposed statements by students. Project joint topic on network science possibly leading to publication. S/U or letter grading.

Special Studies

280. Programming++ for Mathematics Graduate Students. (4) Lecture, three hours. Preparation: programming experience in at least one programming language. Limited to graduate students. Students gain knowledge of core programming language concepts, core operating system constructs, and core computational hardware constructs in order to become proficient in object-oriented software construction and design in compiled language, and be able to rapidly learn new programming language for future activities. Students go beyond writing short programs or scripts that invoke preexisting high-level functionality to capability of creating any high-level functionality using object oriented software constructs and techniques. Emphasis on practice of programming rather than theory of problem solving algorithms. Emphasis on programming environment details, both software and hardware. S/U grading.

285A-285N. Seminars. (4–4) Seminar, three hours. No more than two 285 courses may be applied toward MA degree requirements. Prior consent of graduate vice chair. Topics in various branches of mathematics and their applications by means of lectures and informal conferences with staff members. S/U or letter grading.


285B. Probability. Emphasis on algorithmic efficiency; advanced features of functional hardware constructs in order to become proficient in object-oriented software construction and design in compiled language, and be able to rapidly learn new programming language for future activities. Students go beyond writing short programs or scripts that invoke preexisting high-level functionality to capability of creating any high-level functionality using object oriented software constructs and techniques. Emphasis on practice of programming rather than theory of problem solving algorithms. Emphasis on programming environment details, both software and hardware. S/U grading.

290A. Introduction to Programming. (5) Lecture, three hours; discussion, two hours; laboratory, eight hours. No prior programming experience assumed. Basic principles of programming, using C++, algorithmic, procedural problem solving; program design and development; basic data types, control structures and functions; functional arrays and pointers; introduction to classes for programmer-defined data types. P/NP or letter grading.

290B. Intermediate Programming. (5) Lecture, three hours; discussion, two hours; laboratory, eight hours. Requisite: course 10A or Computer Science 31. Abstraction and data structuring techniques; additional emphasis on algorithmic efficiency; advanced features of C++, such as inheritance and virtual functions; graph algorithms. P/NP or letter grading.

Program in Computing Lower-Division Courses

10A. Introduction to Programming. (5) Lecture, three hours; discussion, two hours; laboratory, eight hours. No prior programming experience assumed. Basic principles of programming, using C++, algorithmic, procedural problem solving; program design and development; basic data types, control structures and functions; functional arrays and pointers; introduction to classes for programmer-defined data types. P/NP or letter grading.

10B. Intermediate Programming. (5) Lecture, three hours; discussion, two hours; laboratory, eight hours. Requisite: course 10A or Computer Science 31. Abstraction and data structuring techniques; additional emphasis on algorithmic efficiency; advanced features of C++, such as inheritance and virtual functions; graph algorithms. P/NP or letter grading.
110. Parallel and Distributed Computing. (5) Lecture, three hours; discussion, two hours; laboratory, eight hours. Requisite: course 10B or equivalent familiarity with programming in C or C++ language. Introduction to programming of parallel computers. Shared and distributed memory parallel architectures; currently available parallel machines; parallel algorithms and program development; estimation of algorithmic performance; distributed computing; selected advanced topics. P/NP or letter grading.

130. Cryptography. (4) Lecture, three hours; discussion, one hour; laboratory, three hours. Requisites: course 108, Mathematics 115A. Design and analysis of cryptosystems for confidentiality and authentication. Classical cryptosystems and their security, modern private-key cryptosystems and applications, public-key cryptography and applications; generating prime numbers, factoring integers, discrete logarithms, digital signatures, perfect secrecy. P/NP or letter grading.

187. Advanced Variable Topics in Programming. (4) Lecture, three hours; discussion, one hour. Variable topics in programming and mathematics of programming not covered in regular program in computing courses. May be repeated for credit with topic change. P/NP or letter grading.


285G. Participating Seminar: Logic and Theory of Computation. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for seminar and discussion by staff and students. S/U grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for seminar and discussion by staff and students. S/U grading.

Graduate Courses
Entry to the Major

Admission
Current UCLA students need to apply for the Mathematics/Economics major by filing a petition with the Student Services Office in 6356 Mathematical Sciences. All students are identified as Mathematics/Economics pre-majors until they satisfy the following minimum requirements for the major: (1) achieve grades of C or better in all pre-major mathematics sequenced courses (Mathematics 31A or 31AL, 31B, 32A, 32B, 33A, 33B, 61, Program in Computing 10A) with a minimum 2.7 grade-point average and no more than two repeats, (2) achieve grades of C or better in all pre-major economics courses (Economics 1, 2, 11) with a minimum 2.7 grade-point average and no more than one repeat, (3) complete one 12-unit term in residence in regular session at UCLA, (4) be enrolled in UCLA regular session at the time of application, and (5) file a petition to declare the major before completing 160 quarter units.

Pre-major
Students entering UCLA directly from high school or first-term transfer students who want to declare the Mathematics/Economics pre-major at the time they apply for admission are automatically admitted to the pre-major.

First-Year Students
To enter the major, students must petition after they have completed the six sequenced courses with a 2.7 minimum overall grade-point average, have completed one 12-unit term in residence in regular session at UCLA, are enrolled in UCLA regular session at the time of application, and before completing 160 quarter units.

Transfer Students
Transfer applicants to the Mathematics/Economics major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of calculus for majors, one introduction to discrete structures course, one microeconomic theory course, one macroeconomic course, and one C++ programming course.

Transfer credit for any of the above is subject to department approval; consult with an undergraduate counselor before enrolling in any courses for the major.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

After satisfying the preparation for the major requirements, students need to petition to enter the major at the Student Services Office after completing one 12-unit term in residence in regular session at UCLA, and while enrolled in UCLA regular session at the time of application.

Requirements

Preparation for the Major
Required: Mathematics 31A or 31AL, 31B, 32A, 32B, 33A, 33B, 61, Economics 1, 2, 11, Program in Computing 10A, one Writing II course.

The Major
Required: Eight mathematics courses, including Mathematics 115A, 131A, 131B, 164, 170E, 170S, 174E (or Economics 141 or Statistics C183), and one elective course from Mathematics 134, 135, 136, or 171; six economics courses, including Economics 101, 102, 103, 103L, and two additional courses from 106E through 199B.

Honors Program
To qualify for honors at graduation, students must (1) complete Mathematics 115AH, 131AH, and 131BH, (2) complete Economics 198A and 198B (the thesis process requires enrollment in a two-term sequence for economics courses), (3) present the thesis in Economics 198B, and (4) complete the major requirements with a minimum 3.5 grade-point average in both the upper-division economics and mathematics courses.

Computing Specialization
Majors in Mathematics/Economics may select a Computing specialization by (1) satisfying all the requirements for a bachelor’s degree in the major; and (2) completing Mathematics 61 or 180, Program in Computing 10A, 10B, two courses from 10C, 15, 16A, 20A, 40A, and at least two courses from Mathematics 149 through 159, with a minimum grade of C– in each course and a combined grade-point average of at least 2.0. Students must petition for admission to the program and are advised to do so after they complete Program in Computing 10B (petitions should be filed in the Mathematics Department Student Services Office).

Students graduate with a bachelor’s degree in mathematics/economics and a specialization in Computing.

Policies

Preparation for the Major
Each course must be taken for a letter grade. The economics preparation for the major courses (Economics 1, 2, 11) are calculated separately from the mathematics preparation for the major courses (Mathematics 31A or 31AL, 31B, 32A, 32B, 33A, 33B, 61, Program in Computing 10A). The economics preparation courses must be completed with a minimum overall 2.7 grade-point average and a grade of C or better in each course, as must the mathematics preparation courses. Students must receive a grade of C or better in the Writing II course.

Repetition of more than one economics preparation course, more than two mathematics preparation courses, or of any economics or mathematics preparation course more than once results in automatic dismissal from the major.

The Major
Each course must be taken for a letter grade. Transfer credit is subject to department approval; consult with an undergraduate counselor before enrolling in any courses for the major.

To graduate, the eight Mathematics Department courses must be completed with an overall grade-point average of 2.0, with grades of C– or better in Mathematics 115A and 131A, as must the five courses from the Economics Department, with grades of C– or better in Economics 101 and 102.

Honors Program
Students who wish to graduate with departmental honors should apply for admission to the honors program in the Mathematics Department Student Services Office. They may apply any time after completing the preparation for the major courses and meeting the following requirements: (1) be officially enrolled in the Mathematics/Economics major, (2) complete all the preparation for the major courses, (3) achieve a minimum 3.5 grade-point average in the mathematics preparation for the major courses, (4) achieve a minimum 3.5 grade-point average in the economics preparation for the major courses, and (5) achieve a minimum 3.5 grade-point average in Economics 11, 101, and 102.

Highest honors are awarded at the discretion of the departmental honors committee based on grade-point average and quality of the senior thesis.

MECHANICAL AND AEROSPACE ENGINEERING
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Robert N. Candler, PhD
Gregory P. Carman, PhD (Ben Rich–Lockheed Martin Professor of Advanced Aerospace Technologies)
Yong Chen, PhD
Eric Pei-Yu Chiou, PhD
Jeffrey D. Eldredge, PhD
Timothy S. Fisher, PhD (John P. and Claudia H. Schauerman Endowed Professor of Engineering)
Elisa Franco, PhD
Rajit Gadh, PhD
The Department of Mechanical and Aerospace Engineering offers curricula in Aerospace Engineering and Mechanical Engineering at both the undergraduate and graduate levels. The scope of the departmental research and teaching program is broad, encompassing design, robotics, and manufacturing; fluid mechanics; micro-nano engineering; structural and solid mechanics; systems control; and thermal science and engineering. The applications of mechanical and aerospace engineering are quite diverse, including aircraft, spacecraft, automobiles, energy and propulsion systems, robotics, machinery, manufacturing and materials processing, microelectronics, biological systems, and more.

Overview

The aerospace engineering program is concerned with the design and construction of various types of fixed-wing and rotary-wing (helicopters) aircraft used for air transportation and national defense. It is also concerned with the design and construction of spacecraft, the exploration and utilization of space, and related technological fields.

Aerospace Engineering is characterized by a very high level of technology. The aerospace engineer is likely to operate at the forefront of scientific discoveries, often stimulating these discoveries and providing the inspiration for the creation of new scientific concepts. Meeting these demands requires the imaginative use of many disciplines, including fluid mechanics and aerodynamics, structural mechanics, materials and aeronautical, and control and guidance, propulsion, and energy conversion.

The aerospace engineering program is accredited by the Engineering Accreditation Commission of ABET.

Capstone Major

The Aerospace Engineering major is a designated capstone major. Within their capstone courses, Aerospace Engineering students are exposed to the conceptual and design phases for aircraft development and produce a structural design of a component, such as a light-weight aircraft wing. Graduates should be able to apply their knowledge of mathematics, science, and engineering in technical systems; design a system, component, or process to meet desired needs; function as productive members of a team; identify, formulate, and solve engineering problems; and communicate effectively, both orally and in writing.

Learning Outcomes

The Aerospace Engineering major has the following learning outcomes:

• Application of knowledge of mathematics, science, and engineering
• Function as a productive member of a team that considers multiple aspects of an engineering problem
• Design of a system, component, or process to meet desired needs
• Effective oral and written communication
• Identification, formulation, and solution of engineering problems

Requirements

Preparation for the Major

Required: Chemistry and Biochemistry 20A, 20B, 20L; Mathematics 31A, 31B, 32A, 32B, 33A; Mechanical and Aerospace Engineering M20 (or Computer Science 31), 82; Physics 1A, 1B, 4A, 4BL.

The Major

Required: Mechanical and Aerospace Engineering 1, 101, 102, 103, 105A, 105D, 107, 150A, 157, 166A, 171A; two departmental breadth courses (Electrical and Computer Engineering 100 and Materials Science and Engineering 104—if one or both of these courses are taken as part of the technical breadth requirement, students must select a replacement upper-division course or courses from the department—except for Mechanical and Aerospace Engineering 156A—or, by petition, from outside the department); one of the following two tracks (16 units): aeronautics (150B, C150P, 154A, 154S) or space (C150R, 161A, 161B, 161C); three technical breadth courses (12 units) selected from an approved list available in the Office of Academic and Student Affairs; one capstone design course (Mechanical and Aerospace Engineering 157A); one major field elective course (4 units) from the track not chosen (150B or C150P; C150R or 161A) and one major field elective course (4 units) from Mechanical and Aerospace Engineering 150B, C150R, 154S, 161A, 161B, 161C (unless taken as a required course), or from 94, 131A, C131G, 133A, 135, C136, C137, C138, CM140, 150C, 150G, 154B, 155, 156B, 162A, C162B, C163A, C163B, C163C, 166C, M168, 169A, 171B, 172, 174, C175A, 181A, 182B, 182C, 183A, M183B, C183C, 185, C186, C187L.

For information on UC, school, and general education requirements, see the Samueli school section in College and Schools.

Mechanical Engineering BS

The mechanical engineering program is designed to provide basic knowledge in thermodynamics, fluid mechanics, heat transfer, solid mechanics, mechanical design, dynamics, control, mechanical systems, manufacturing, and materials. The program includes fundamental subjects important to all mechanical engineers.
The mechanical engineering program is accredited by the Engineering Accreditation Commission of ABET.

**Capstone Major**

The Mechanical Engineering major is a designated capstone major. Within their capstone courses, Mechanical Engineering students work in teams to propose, design, analyze, and build a mechanical or electromechanical device. Graduates should be able to apply their knowledge of mathematics, science, and engineering in technical systems; design a system, component, or process to meet desired needs; function as productive members of a team; identify, formulate, and solve engineering problems; and communicate effectively, both orally and in writing.

**Learning Outcomes**

The Mechanical Engineering major has the following learning outcomes:

- Application of knowledge of mathematics, science, and engineering
- Function as a productive member of a team that considers multiple aspects of an engineering problem
- Design of a system, component, or process to meet desired needs
- Effective oral and written communication
- Identification, formulation, and solution of engineering problems

**Requirements**

**Preparation for the Major**

*Required:* Chemistry and Biochemistry 20A, 20B, 20L; Mathematics 31A, 31B, 32A, 32B, 33A; Mechanical and Aerospace Engineering M20 (or Computer Science 31), 82, 94; Physics 1A, 1B, 1C, 4AL, 4BL.

**The Major**

*Required:* Electrical and Computer Engineering 110L, Mechanical and Aerospace Engineering 101, 102, 103, 105A, 105D, 107, 131A or 133A, 156A, 157, 162A, 171A, 183A (or M183B); two departmental breadth courses (Electrical and Computer Engineering 100 and Materials Science and Engineering 104)—if one or both of these courses are taken as part of the technical breadth requirement, students must select a replacement upper-division course or courses from the department—except for Mechanical and Aerospace Engineering 166A—or, by petition, from outside the department; three technical breadth courses (12 units) selected from an approved list available in the Office of Academic and Student Affairs; two capstone design courses (Mechanical and Aerospace Engineering 162D, 162E); and two major field elective courses (8 units) from Mechanical and Aerospace Engineering 131A (unless taken as a required course), C131G, 133A (unless taken as a required course), 135, C136, C137, C138, C1410, 150A, 150B, 150C, C150G, C150P, C150R, 154B, 154S, 155, C156B, 157A, 161A, 161B, 161C, C162B, C163A, C163B, C163C, 166C, 166B, 166A, 171B, 172, 174, C175A, 181A, 182B, 182C, 183A (unless taken as a required course), M183B (unless taken as a required course), C183C, 185, C186, C187L.

For information on UC, school, and general education requirements, see the Samuels book section in College and Schools.

**Graduate Majors**

**Aerospace Engineering MS, PhD**

**Requirements**

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

**Manufacturing Engineering MS**

**Requirements**

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

**Mechanical Engineering MS, PhD**

**Requirements**

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

**Mechanical and Aerospace Engineering Lower-Division Courses**

1. **Undergraduate Seminar.** (1) Seminar, one hour; outside study, two hours. Introduction by faculty members and industry lecturers to mechanical and aerospace engineering disciplines through current and emerging applications in aerospace, medical instrumentation, automotive, entertainment, energy, and manufacturing industries. P/NP grading.
2. **Fiat Lux Freshman Seminars.** (1) Seminar, one hour: Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating topics of current intellectual importance. Offered concurrently to General Education M20. P/NP grading.

**Mechanical and Aerospace Engineering Upper-Division Courses**


**2. Dynamics of Particles and Rigid Bodies.** (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: course 101, Mathematics 33A, Physics 1A. Fundamental concepts of Newtonian mechanics and Newton’s laws of motion. Kinematics and dynamics of particles and rigid bodies in two and three dimensions. Impulse-momentum and work-energy relationships. Applications. Letter grading.

**3. Elementary Fluid Mechanics.** (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: Mathematics 32B, 33A, Physics 1B. Introductory course dealing with application of principles of mechanics to flow of compressible and incompressible fluids. Letter grading.

**4. Introduction to Engineering Thermodynamics.** (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: Chemistry 20B, Mathematics 32B. Phenomenological thermodynamics. Concepts of equilibrium, temperature, and reversibility. First law and concept of energy; second law and concept of entropy. Equations of state and thermodynamic properties. Engineering applications of these principles in analysis and design of closed and open systems. Letter grading.

**5. Transport Phenomena.** (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 82, 103, 105A. Transport phenomena: heat conduction, mass species diffusion, convective heat and mass transfer, and radiation. Engineering applications in thermal and environmental control. Letter grading.

**6. Introduction to Modeling and Analysis of Dynamic Systems.** (4) Lecture, four hours; discussion, one hour; laboratory, two hours; outside study, five hours. Enforced requisites: courses M20 (or Computer...
C131G. Microscopic Energy Transport. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: courses M20 (or Civil Engineering M20 or Computer Science 31), B2, 105D. Steady conduction; transient, large signal response; Black diagram representation and response of interconnected systems. Hands-on experiments reinforcement. Letter grading.

C131A. Intermediate Heat Transfer. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: courses M20 (or Civil Engineering M20 or Computer Science 31), B2, 105D. Steady conduction; transient, large signal response. Block diagram representation and response of interconnected systems. Hands-on experiments reinforcement. Letter grading.

C150R. Experimental Illustration of Important Physical Concepts. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: courses M20 (or Civil Engineering M20 or Computer Science 31), B2, 105D. Steady conduction; transient, large signal response. Block diagram representation and response of interconnected systems. Hands-on experiments reinforcement. Letter grading.

C154S. Flight Mechanics, Stability, and Control of Aircraft. (4) Lecture, four hours; discussion, two hours; outside study, seven hours. Requisites: courses 150A, 150B. Aircraft performance, flight mechanics, stability, and control; some basic ingredients needed for design. Emphasis on shape flexibility on stability derivatives. Letter grading.

C155. Intermediate Dynamics. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 102. Axioms of Newtonian mechanics, Lagrange equation, variational principles; central force motion; kinematics and dynamics of rigid bodies. Euler equations, motion of rotating bodies, oscillatory motion, non-coordinate relativity. Letter grading.

C156A. Advanced Strength of Materials. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 201, 202. Not open to students with credit for course 166A. Concepts of stress, transducers, recording equipment, signal processing, data analysis. Letter grading.

C161A. Introduction to Aeronautics. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 102. Recommended: course 150A or 150B, 156A, 156B. Experimental Illustration of Important Physical Concepts. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 150A or 156A. Material selection, design using composite materials. Design for fatigue prevention and structural optimization. Field trips to aerospace companies. Letter grading.

C161B. Preliminary Design and Analysis of Spacecraft. (4) Lecture, four hours; discussion, two hours; outside study, eight hours. Requisite: course 102 or equivalent. The design of hardware for spacecraft and related structures. External loads, internal stresses. Applied theory of thin-walled structures. Material selection, design using composite materials. Design for fatigue prevention and structural optimization. Field trips to aerospace companies. Letter grading.

C150P. Aircraft Propulsion Systems. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 102. Axioms of Newtonian mechanics, Lagrange equation, variational principles. Vertical and horizontal flight. Space mission design involving computer-aided design (CAD) and finite element analysis (FEA) modeling. Letter grading.

C162B. Compliant Mechanism Design. (4) Lecture, four hours; outside study, eight hours. Requisite: Linear algebra. Design of compliant mechanisms that mimic biological systems. Modeling techniques, optimization tools. Fundamentals of flexible constraint theory, principles of constraint-based design, projective geometry, solid mechanics and freedom models.CAD and FEA simulation tools. Hands-on exercises include build-your-own flexure kits, CAD and FEA simulations, and term project. Concurrently scheduled with course C199A. Letter grading.

162D. Mechanical Engineering Design I. (4) Lecture, two hours; laboratory, four hours; outside study, six hours. Enforced requisites: courses 94, 156A (or 183A) or M183B, 162A (or 171A). Limited to seniors. First of two mechanical engineering capstone design courses. Lecture, system dynamics, design of thermal systems, mechatronics, mechanical systems, and mechanical components. Students work in teams to begin their two-term design project. Laboratory modules include CAD design, CAD analysis, mechatronics, and conceptual design for team project. Letter grading.

162E. Mechanical Engineering Design II. (4) Lecture, two hours; laboratory, four hours; outside study, six hours. Enforced requisites: course 162D. Limited to seniors. Second of two mechanical engineering capstone design courses. Student groups continue design project begun in course 162D, making use of CAD design laboratory, CAD analysis laboratory, and mechatronics laboratory. Design theory, design tools, economics, marketing, manufacturability, quality, intellectual property, design for manufacture and assembly, design for safety and reliability, and engineering ethics. Students conduct hands-on design, fabrication, and testing. Culminating project demonstration includes final presentation of design project solutions in both oral and written formats. Letter grading.

C163A. Kinematics of Robotic Systems. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: courses 155, 171A. Kinematic models of serial robotic manipulators, including spatial descriptions and transformations (Euler angles, Denavit-Hartenberg/ DH parameters, equivalent algebraic vector frame), kinematic procedure, direct kinematics, inverse kinematics (geometric and algebraic approaches), mechanical design topics. Concurrently scheduled with course C263A. Letter grading.

C163B. Dynamics of Robotic Systems. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: course C163A. Dynamics models of serial and parallel robotic manipulators, including review of spatial descriptions and transformations and inverse kinematics, linear and angular velocities, Jacobian matrix (velocity and force), velocity propagation method, force propagation method, explicit formulation of Jacobian matrix, manipulator dynamics (Newton/Euler formulation, Lagrangian formulation), trajectory generation, introduction to parallel manipulators. Concurrently scheduled with course C263B. Letter grading.

165C3. Control of Robotic Systems. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: course C163B. Sensors, actuators, and control schemes for robotic systems, including computer control of feedback control, impedance and force feedback control, and advanced control topics from nonlinear and adaptive control, hybrid control, nonholonomic systems, vision-based control, and perception. Concurrently scheduled with course C263C. Letter grading.

166A. Analysis of Aerospace Structures. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: courses B2, 101. Not open to students placed for course 156A. Introduction to two-dimensional, elasticity, stress-strain laws, yield and fatigue; bending of beams; torsion of beams; warping; torsion of thin-walled cross sections: shear flow, shear lag; combined bending torsion of thin-walled, stiffened beams; design: selection of elements of plate theory; buckling of columns. Letter grading.

166C. Design of Composite Structures. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: course 156A or 166A. History of composites, stress-strain relations for composite materials, bending and extension of symmetric laminates, design examples and design studies, buckling of composite components, non-symmetric laminates, micromechanics of composites. Letter grading.

M169. Introduction to Finite Element Methods. (4) Lecture, four hours; discussion, two hours; outside study, six hours; discussion, one hour; outside study, seven hours. Enforced requisites: course 156A or 166A or Civil Engineering 130. Introduction to basic concepts of finite element analysis and applications to structural and solid mechanics and heat transfer. Direct matrix structural analysis; weighted residual, least squares, and Ritz approximation methods; shape functions; convergence properties; geometric, density and dimensional formulation of multidimensional heat flow and elasticity; numerical integration; Practical use of FEM software; geometric and analytical modeling; preprocessing and postprocessing techniques; term projects with computers. Letter grading.

169A. Introduction to Mechanical Vibrations. (4) Lecture, four hours; discussion, two hours; outside study, six hours; discussion, one hour; outside study, ten hours. Fundamentals of vibration theory and applications. Free, forced, and transient vibration of one and two degrees of freedom systems, including damping phenomena. Normal modes, stability, and normal coordinates. Vibration isolation devices, vibrations of continuous systems. Letter grading.

171A. Introduction to Feedback and Control Systems: Dynamic Systems Control I. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: course 107. Introduction to feedback principles, control systems design, and system stability. Modeling of physical systems in engineering and science fields; control system design using Nyquist, Bode, and root locus methods; compensation; computer-aided analysis and design. Letter grading.


172. Control in Manufacturing. (4) Lecture, four hours; laboratory, two hours; outside study, six hours. Enforced requisites: course 171A. Introduction to loop shaping controller design with application to process control systems. Power spectral models of noise and disturbances, and performance trade-offs imposed by conflicting requirements. Constraints on sensitivity function and complementary sensitivity function imposed by nonimproper phase plants. Lecture topics supported by weekly hands-on laboratory work. Letter grading.

174. Probability and Its Applications to Risk, Reliability, and Quality Control. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: Mathematics 33A. Introduction to probability theory; random variables, distributions, functions of random variables, models of failure of components, reliability, redundancy, complex systems, stress-strength models, fault tree analysis, statistical quality control by variables and by attributes, acceptance sampling. Letter grading.


171A. Complex Analysis and Integral Transforms. (4) Lecture, four hours; discussion, two hours. Enforced requisites: course 172. Complex variables, analytic functions, conformal mapping, contour integrals, singularities, residues, Cauchy integrals; Laplace transform; properties, convolution, inversion; Fourier transform: properties, convolution, FFT, applications in dynamics, vibrations, structures, and heat conduction. Letter grading.


M183B. Introduction to Microscale and Nanoscale Manufacturing. (4) (Same as Bioengineering M153, Chemical Engineering M153, and Electrical and Computer Engineering M153.) Lecture, four hours; laboratory, four hours; outside study, five hours. Enforced requisites: Chemistry 20A, Physics 1A, 1B, 1C, 4AL. Introduction to general manufacturing methods, mechanisms, constrains, and microfabrication and nanofabrication. Focus on concepts, physics, and instruments of various microfabrication and nanofabrication techniques that have been broadly applied in industry and academia, including various photolithography technologies, physical and chemical deposition methods, and physical and chemical etching methods. Emphasis on fabrication of microstructures and nanostructures in modern clean-room environment. Letter grading.

C183C. Rapid Prototyping and Manufacturing. (4) Lecture, four hours; laboratory, two hours; outside study, five hours. Enforced requisites: course 183A. Rapid prototyping (RP), solid freeform fabrication, or additive manufacturing has emerged as popular manufacturing technology to accelerate product creation in less than two decades. Machine for layered manufacturing builds parts directly from CAD models. This novel manufacturing technology enables building of parts that have traditionally been impossible to fabricate using conventional methods. Rapid Prototyping enables the fabrication of novel manufacturing technology to accelerate product creation in less than two decades. Machine for layered manufacturing builds parts directly from CAD models. This novel manufacturing technology enables building of parts that have traditionally been impossible to fabricate using conventional methods. Rapid Prototyping enables the fabrication of parts that have traditionally been impossible to fabricate using conventional methods. Rapid Prototyping enables the fabrication of parts that have traditionally been impossible to fabricate using conventional methods. Rapid Prototyping enables the fabrication of parts that have traditionally been impossible to fabricate using conventional methods.
188SC. Individual Studies for USEI Facilitators. (2) Tutorial, to be arranged. Enforced requisite: course 188SB. Limited to junior/senior USEI facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USEI 88S course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

194. Research Group Seminars: Mechanical and Aerospace Engineering. (2 to 8) Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit with school approval. Individual contract required; enrollment permits available in Office of Academic and Student Affairs. Letter grading.

Graduate Courses


231B. Radiation Heat Transfer. (4) Lecture, four hours; outside study, eight hours. Requisite: course 105D. Radiative properties of materials and radiative energy transfer. Emphasis on fundamental concepts, including energy levels and electromagnetic waves as well as analytical methods for calculating radiative properties and radiation transfer in absorbing, emitting, and scattering media. Applications cover laser-material interactions, radiative phenomena, such as combustion and thermal insulation. Letter grading.


C231G. Microscopic Energy Transport. (4) Lecture, four hours; outside study, eight hours. Requisite: course 105D. Exploration of basic principles of transport of energy in condensed matter. Analysis of models and fabricated structures by three carriers: electrons, phonons, and molecules. Study of statistical properties of heat carriers, common Landauer framework for heat flow; scattering and propagation of heat carriers, derivation of classical laws from microscopic transport equations, and deviation from classical laws at small scale. Term project. Concurrently scheduled with course C131G. Letter grading.

233. Nanoscience for Energy Technologies. (4) Lecture, four hours; outside study, eight hours. Introduction to fundamental principles of energy transport, conversion, and storage at nanoscale, and recent developments for their efficient exploitation in nanotechnology. Focus on basics of thermal science, solid state, quantum mechanics, electromagnetics, and statistical physics. Topic discussions given for examples that connect technology-application, fundamental challenge, and scientific-solution-based nanotechnology to improve device performance and energy efficiency. Letter grading.

235A. Nuclear Reactor Theory. (4) Lecture, four hours; outside study, eight hours. Underlying physics and mathematics of nuclear reactor (fission) core design. Diffusion theory, reactor kinetics, slowing down and thermalization, multigroup methods, introduction to transport theory. Letter grading.

C236. Energy and Environment. (4) Lecture, four hours; discussion; two hours; outside study, six hours. Enforced requisite: course 105A or equivalent. Global energy use and supply, electrical power generation, fossil fuel and nuclear power plants, renewable energy such as hydropower, biomass, geothermal, solar, wind, ocean; fuel cells, transportation, energy conservation, air and water pollution, global warming. Concurrently scheduled with course C136. Letter grading.

C237. Design and Analysis of Smart Grids. (4) Lecture, four hours; outside study, eight hours. Smart grid concepts; transactive response; transactive-price-based load control; home area network, smart energy profile; advanced metering infrastructure; renewable energy integration; smart grid generation: photovoltaic, wind, fuel cells; microgrids; grid stability; energy storage and electric vehicles; monitoring; distribution and transmission grids; consumer-centric technologies; sensors, communications, and computing; wireless, wireline, and powerline communications for smart grids; grid modeling, stability, and control; frequency and voltage regulation; ancillary services; wide-area situational awareness, phasor measurements; analytical methods and tools for monitoring and control. Concurrently scheduled with course C137. Letter grading.


C238. Introduction to Statistical Thermodynamics. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 105A, 105D. Introduction to basic concepts and tools of statistical thermodynamics. Abstract concepts of entropy, temperature, and chemical potential are explained by developing these concepts from the ground up using analytical and statistical principles. Discussion of equilibrium properties of thermodynamic systems and associated distributions. Provides sound foundation for further studies in transport phenomena, plasma physics, and mesoscopic or nanoscale science and technology, and other related subjects. Concurrently scheduled with course C138. Letter grading.

239B. Seminar; Current Topics in Transport Phenomena. (2 to 4) Seminar, two to four hours; outside study, four to eight hours. Designed for graduate mechanical and aerospace engineering students. Lectures, discussions, student presentations, and projects in areas of current interest in transport phenomena. May be repeated for credit. S/U grading.

239F. Special Topics in Transport Phenomena. (2 to 4) Lecture, two to four hours; outside study, four to eight hours. Designed for graduate mechanical and aerospace engineering students. Current and advanced study of one or more aspects of heat and mass transfer, such as turbulence, stability and transition, buoyancy effects, variational methods, and measurement techniques. May be repeated for credit with topic change. S/U grading.

239G. Special Topics in Nuclear Engineering. (2 to 4) Lecture, two to four hours; outside study, four to eight hours. Designed for graduate mechanical and aerospace engineering students. Advanced study and current study of one or more aspects of heat and mass transfer, such as turbulence, stability and transition, buoyancy effects, variational methods, and measurement techniques. May be repeated for credit with topic change. S/U grading.
239H. Special Topics in Fusion Physics, Engineering, and Technology. (2 to 4) Seminar, two to four hours; outside study, four to eight hours. Recommended for graduate programs in aerospace engineering. Enforced requisites: courses 105A, 150A, 155A. Designed for graduate students. Introduction to research topics selected from areas in fusion science and engineering, such as instabilities in burning plasmas, alternative fusion confinement concepts, inertial confinement fusion, fusion reactors, and fusion reactor safety. May be repeated for credit with topic change. S/U grading.

CM240. Introduction to Biomechanics. (4) Same as Bioengineering M240. Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 101, 102, and 156A or 166A. Introduction to biomechanical functions of human body; skeletal adaptations to locomotion; posture, mobility, and function. Kinematics and Dynamics of Mechanical. Fluid mechanics applications. Heat and mass transfer. Power generation. Laboratory simulations and tests. Concurrently scheduled with course CM140. Letter grading.

242. Introduction to Multiferroic Materials. (4) Lecture, four hours; outside study, eight hours. Overview of different types of multiferroic materials, including strain mediated. Basic crystal structure of single-phase materials as well as fundamental physics underlying ferroelectricity and ferromagnetism. Material science description of these materials, with focus on linear and nonlinear behavior with associated mechanisms and measurements. Presentation of analytical tools necessary to predict material response ranging from constitutive relations to governing equations, including elastodynamics and Maxwell’s. Analytical and physical descriptions used to explain several devices manufactured with multiferroics, including magnets, memory devices, motors, and antennas. Letter grading.


250B. Viscous and Turbulent Flows. (4) Lecture, four hours; outside study, eight hours. Requisite: course 150A. Fundamental principles of fluid dynamics applied to study of fluid resistance. States of fluid motion discussed in order of advancing Reynolds number. Integration of subject matter from physical sciences and mechanics. Integration of subject matter from physical sciences and mechanics. Introduction to van der Waals interactions, electrical double layer, and zeta potential. Basics of non-Newtonian fluid mechanics. Letter grading.

250C. Compressible Flows. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 105A, 150A. Thermodynamic properties of gases, aircraft jet engine cycle analysis, component performance, component matching, advanced aircraft engine topics. Concurrently scheduled with course C150P. Letter grading.


252P. Plasma and Ionized Gases. (4) Lecture, four hours; outside study, eight hours. Requisite: course 150A or 166A. Fluid dynamics and transport phenomena ranging from constitutive relations to governing equations, including elastodynamics and Maxwell’s. Analytical and physical descriptions used to explain several devices manufactured with multiferroics, including magnets, memory devices, motors, and antennas. Letter grading.

252A. Variational principles and Lagrange equations. (4) Lecture, four hours; discussion, two hours; outside study, eight hours. Requisites: courses 155, 150A. Mechanics of continuous media, fluid mechanics, and electric arcs. Letter grading.


252S. Spectroscopy and Molecular Gas Dynamics. (4) Lecture, four hours; outside study, eight hours. Requisite: course 150A. Concepts of stability; state-space interpretation of stability; application by simulation, linearization, and Lyapunov direct method; the Hamiltonian as a Lyapunov function; nonautonomous systems; averaging and perturbation methods of nonlinear analysis; polynomial expansions. Application to mechanical systems. Letter grading.

252A. Linear Elasticity. (4) Same as Civil Engineering M230A. Lecture, four hours; outside study, eight hours. Requisite: course 150A or 166A. Linear elastostatics. Cartesian tensors; infinitesimal strain tensor; Cauchy stress tensor; strain energy; equilibrium equations; constitutive relations; plane elastostatic problems, holes, corners, inclusions, cracks; three-dimensional problems of Kelvin, Boussinesq, and Cerruti. Introduction to boundary integral equation method. Letter grading.

252B. Nonlinear Elasticity. (4) Same as Civil Engineering M230B. Lecture, four hours; outside study, eight hours. Requisite: course 150A or 166A. Linear elastostatics. Cartesian tensors; infinitesimal strain tensor; Cauchy stress tensor; strain energy; equilibrium equations; constitutive relations; plane elastostatic problems, holes, corners, inclusions, cracks; three-dimensional problems of Kelvin, Boussinesq, and Cerruti. Introduction to boundary integral equation method. Letter grading.

252C. Plasticity. (4) Same as Civil Engineering M230C. Lecture, four hours; outside study, eight hours. Requisites: courses M256A, M256B. Classical rate-dependent viscoplasticity, and hyperelasticity; finite element methods. Letter grading.

256F. Analytical Fracture Mechanics. (4) Lecture, four hours; outside study, eight hours. Requisite: course 252A. Review of modern fracture mechanics, elementary stress analysis, analytical and numerical methods for calculation of crack tip stress intensity factors; engineering applications in stressed structures, pressure vessels, plates, and shells. Letter grading.

257A. Elastodynamics. (4) Same as Earth, Planetary, and Space Sciences M224A. Lecture, four hours; outside study, eight hours. Requisites: courses M256A, M256B. Equations of linear elasticity, Cauchy equation of motion, constitutive relations, boundary and initial conditions, principle of energy. Sources and
waves in unbounded isotropic, anisotropic, and dissipative solids. Half-space problems. Guided waves in layered media. Applications to dynamic fracture, non-destructive evaluation (NDE), and mechanics of earthquakes. Lecture, two hours.

258A. Nanomechanics and Micromechanics. (4) Lecture, four hours; outside study, eight hours. Requisite: course M256A. Analytical and computational modeling of mechanics of nanoscale systems at scales ranging from atomic through microstructure or transitional and up to continuous. Discussion of atomistic simulation methods (e.g., molecular dynamics, Liquid Kinetics Monte Carlo), and their applications at nanoscale. Developments and applications of dislocation dynamics and statistical mechanical methods in areas of nanoscale and microstructure. Heterogeneous plastic deformation, material instabilities, and failure phenomena. Presentation of technical applications of these emerging modeling techniques to surfaces and interfaces, grain boundaries, dislocations and defects, surface growth, quantum dots, nanotubes, nanoclusters, thin films (e.g., optical thermal barrier coatings and ultrasonar nanolayer materials), nano-identification, smart structures, nano-membrane bending and torsion. Letter grading.

259A. Seminar: Advanced Topics in Fluid Mechanics. (4) Seminar, four hours; outside study, eight hours. Enforced requisite: course 225A. Topics in fluid mechanics, with intensive attention on dislocation involving assignments in research problems leading to term paper or oral presentation (possible help from guest lecturers). Letter grading.

259B. Seminar: Advanced Topics in Solid Mechanics. (4) Seminar, four hours; outside study, eight hours. Advanced study in various fields of solid mechanics topics on which may vary from term to term. Topics include dynamics, elasticity, plasticity, and stability of solids. Letter grading.

260. Current Topics in Mechanical Engineering. (2 to 4) Seminar, two to four hours; outside study, four to eight hours. Designed for graduate mechanical and aerospace engineering students. Lectures, discussions, and student presentations and projects in areas of current interest in mechanical engineering. May be repeated for credit. S/U grading.


261B. Finite Element Analysis for Solids and Structures. (4) Lecture, four hours; outside study, eight hours. Requisite: course 156A or M256A, or consent of instructor. Strongly recommended requisites: courses M168, M256B, 261A. Application of finite element method to classical and state-of-art modeling and design problems for solids and structures. Introduction of commercial mainstream finite element program—ABAQUS—and demonstration of how to use it in advanced way. Topics include review of finite element method, static and dynamic linear elasticity, finite deformable material, initial and boundary-value problems, analysis, fracture, and implementation of user-defined subroutines in ABAQUS. Term projects using computers. Letter grading.

262. Mechanics of Intelligent Material Systems. (4) Lecture, four hours; outside study, eight hours. Recommended requisite: course 166C. Constitutive relations for electro-magneto-mechanical materials. Fiber optic sensor technology. Micro/macro analysis, including classical theory, shear lag theory and the concentric cylinder analysis, hexagonal models, and homogenization techniques as they apply to active materials. Active systems design, non-invasive, and biomorph. Letter grading.

263A. Kinematics of Rotating Systems. (4) (Formerly numbered 263A.) Lecture, four hours; discussion, two hours; outside study, six hours. Recommended requisites: courses 155, 171A. Kinematical models of serial robotic manipulators, including spatial descriptions and transformations (Eulerian angles, Denavit-Hartenberg/DH parameters, equivalent angle vector), forward and inverse problems, kinematics, inverse kinematics (geometric and algebraic approaches), mechanical design topics. Concurrently scheduled with course C163A. Letter grading.

263B. Dynamics of Robotic Systems. (4) (Formerly numbered 263B.) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite course C263A. Recommended: course 255B. Dynamics models of serial and parallel robotic manipulators (kinematic and dynamic models, and redundancy issues and manipulator design). Half-space problems. Guided waves in structures. Lecture, two hours; outside study, eight hours. Enforced requisite course C263A. Letter grading.

263C. Control of Robotic Systems. (4) (Formerly numbered 263C.) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course C263B. Sensors, actuators, and control schemes for robotic systems. Guidelines for computing torque control, linear feedback control, impedance and force feedback control, and advanced control topics from nonlinear and adaptive control, hybrid control, and combined control and perception. Concurrently scheduled with course C163B. Letter grading.

263D. Advanced Topics in Robotics and Control. (4) Lecture, four hours; outside study, eight hours. Enforced requisite: course C263C. Current and advanced topics in robotics and control, including kinematics, dynamics, control, mechanical design, advanced sensors and actuators, flexible links, manipulability, redundant manipulators, human-robot interaction, teleoperation, haptics. Letter grading.

263E. Bionic Systems Engineering. (4) Lecture, four hours; outside study, eight hours. Enforced requisite: courses M20, B2, or equivalent. Introduction to design principles for bionic systems, including wearable robotics and implantable devices. Neural control of movement, neuromusculoskeletal modeling, actuator design, sensor integration, robotic control, neural interfacing, surgical techniques for amputation, and fundamentals of orthopaedic implants. Letter grading.

263F. Mechanics of Flexible Structures and Soft Robots. (4) Lecture, four hours; outside study, eight hours. Enforced requisite: courses 259B, 261, or equivalent. Introduction to mechanics and modeling of rods, plates, shells, and robots. Rod and shell-like structures appear across wide range of length-scale from nanometer size macroscale to undersize cables at kilometer-scale. Covers algorithms for numerical simulation of such structures, inspired by recent advances in field of computer graphics and machine learning. Specifically, discrete differential geometry and neural ordinary differential equations are used for modeling of highly deformable structures. Such simulations are widely used in movies and video games for animation of hair and clothes. Final project involves design and simulation of soft robot (or any other complex structure agreed upon by instructor and student). Topics include elastic stress-strain relations for rod, plate, and shell models of equilibrium, discrete differential geometry-based numerical simulation; neural ordinary differential equations. Letter grading.


M270A. Linear Dynamic Systems. (4) (Same as Chemical Engineering M220A and Electrical and Computer Engineering M220A.) Lecture, four hours; outside study, eight hours. Requisite: course 171A or Electrical and Computer Engineering 141. State-space description of linear time-invariant (LTV) systems in continuous and discrete time. Linear algebra concepts such as eigenvalues and eigenvectors, singular values, Cayley/Hamilton theorem. Jordan form; solution of state equations; stability, controllability, observability, realizability, and minimality. Stabilization design via state feedback and observers; separation principle. Connections with transfer functions and poles/zeros. Letter grading.

270B. Linear Optimal Control. (4) Lecture, four hours; outside study, eight hours. Requisite: course M270A or Electrical Engineering M240A. Existence and uniqueness of (nonlinear) quadratic (LQ) optimal control problems for continuous- and discrete-time systems, finite-time and infinite-time problems; Hamiltonian systems and optimal control; algebraic and differential Riccati equations; implications of controllability, stabilizability, observability, and detectability solutions. Letter grading.

M270C. Optimal Control. (4) (Same as Chemical Engineering M220C and Electrical and Computer Engineering M220C.) Lecture, four hours; outside study, eight hours. Requisite: course 270B. Applications of variational methods, Pontryagin maximum principle, Hamilton/Jacobi/Bellman equation (dynamic programing) to optimal control of dynamic systems modeled by nonlinear ordinary differential equations. Letter grading.

C271A. Probability and Stochastic Processes in Dynamical Systems. (4) Lecture, four hours; outside study, eight hours. Requisite: courses 225A, 261, or equivalent. Stochastic sequences and random variables, stochastic processes and operations, conditional expectation, Gaussian/Markov sequences, and minimum variance estimator (Kalman filter) with applications. Concurrently scheduled with course C175A. Letter grading.

271B. Stochastic Estimation. (4) Lecture, four hours; outside study, eight hours. Enforced requisite course C271A. Linear and non-linear estimation theory, orthogonal projection lemma, Bayesian filtering theory, conditional mean and risk estimators. Letter grading.


271D. Seminar: Special Topics in Dynamical Systems Control. (4) Seminar, four hours; outside study, eight hours. Seminar on current research topics in dynamic systems modeling, control, and applications. Topics selected from process control, differential games, nonlinear estimation, adaptive filtering, industrial and aerospace applications, etc. Letter grading.

273A. Robust Control System Analysis and Design. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 171A, M270A. Graduate-level introduction to analysis and design of multivariable control systems. Multivariable loop-shaping, performance requirements, model uncertainty representations, and robustness covered in detail from frequency domain perspective. Structured singular value and its application to robust control. Letter grading.

275A. System Identification. (4) Lecture, four hours; outside study, eight hours. Methods for identification of dynamical systems from input/output data, with emphasis on identification of discrete-time (digital) models of sampled-data systems. Coverage of conversion to continuous-time models. Models identified include transfer functions and state-space models. Discussion of topics in mechanical, aerospace, and acoustical systems, including identification of flexible structures, microelectromechanical systems (MEMS) devices, and acoustic ducts. Letter grading.

277. Advanced Digital Control for Mechatronic Systems. (4) Lecture, four hours; laboratory, two hours; outside study, six hours. Requisites: courses 171B, M270A. Digital signal processing and control analysis of mechatronic systems. System inversion-based digital control algorithms and robustness properties. Youla parameterization and stabilizing controller design are viewed optimal feedforward compensator, repetitive and learning control, and adaptive control. Real-time control investigation of topics to selected mechatronic systems. Letter grading.

279. Dynamics and Control of Biological Oscillations. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 107, M270A. Analysis and design of dynamical mechanisms underlying biological oscillations. Topics include neuronal information processing through action potentials (spike train), central pattern generator, coupled nonlinear oscillators, optimal gait (periodic motion) for animal locomotion, and entrainment of natural oscillations via feedback control. Letter grading.


M290B. Microelectromechanical Systems (MEMS) Fabrication. (4) (Same as Bioengineering M295B and Electrical and Computer Engineering M295B.) Lecture, four hours; discussion, one hour; outside study, eight hours. Enforced requisite: course M183B. Advanced discussion of micromachining processes used to construct MEMS. Topics: MEMS design, deep photolithographic, deep etch, and etching processes, as well as their combination in process integration technology. Materials issues such as chemical resistance, corrosion, mechanical properties, and reliability. Letter grading.

281. Microsciences. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 102, 103D, 105D. Fundamental issues of being in microscopic world and mechanical engineering of microscopic devices. Topics include scale issues, surface tension, superhydrophobic surfaces and applications, and electrowetting and applications. Letter grading.

M292. Microelectromechanical Systems (MEMS) Device Physics and Design. (4) (Same as Bioengineering M252 and Electrical and Computer Engineering M252J.) Lecture, four hours; discussion, one hour; outside study, seven hours. Introduction to MEMS design rules (MEMS sizes), and actuation mechanisms, microsensors, and micro-actuators. Designing MEMS to be produced with both foundry and nonfoundry processes. Computer-aided design for MEMS. Design project required. Letter grading.


285. Interfacial Phenomena. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 82, 103, 105A, 105D. Introduction to fundamental physical phenomena occurring at interfaces and application of their knowledge to engineering problems. Fundamental concepts of interfacial phenomena, including surface tension, surfactants, interfacial thermodynamics, interfacial forces, interfacial hydrodynamics, and dynamical behavior of liquid films. Applications of interfacial phenomena, including wetting, change of phase boiling and condensation), forms and emulsions, microelectromechanical systems, and biological systems. Letter grading.


M287. Nanoscience and Technology. (4) (Same as Electrical and Computer Engineering M287L.) Lecture, four hours; outside study, eight hours. Introduction to fundamentals of nanoscale science and technology. Basic physical principles, quantum mechanics, chemical bonding and nanostructures, top-down and bottom-up (self-assembly) nanofabrication; nanocharacterization; nanomaterials, nanoelectronics, and nanobiodetection technology. Introduction to new scientific principles behind nanotechnology and inspire students to create new ideas in multidisciplinary nanofabrication. Letter grading.

289L. Nanomaterial Characterization, and Biodetection Laboratory. (4) Lecture, two hours; laboratory, three hours; outside study, seven hours. Multidisciplinary course that introduces laboratory techniques to students. Topics include: nanomaterial characterization, and biodetection. Basic physical, chemical, and biological principles related to these techniques, top-down and bottom-up (self-assembly) nanofabrication, and bio-characterization. Students design, characterize, and interpret optical, electrical, and electrochemical biosensors. Students encouraged to create their own ideas in self-designed experiments. Concurrently scheduled with course C187L. Letter grading.

C294A. Compliant Mechanism Design. (4) (Formerly numbered 294A.) Lecture, four hours; outside study, eight hours. Requisite: linear algebra. Advanced compliant mechanism synthesis approaches, modeling techniques, and optimization tools. Fundamentals of flexible constraint theory, principles of constraint-based design, projective geometry, screw theory kinematics, and freedom and constraint topologies. Applications: precision motion stages, general purpose flexible mechanisms, micromachined, MEMS, optical mounts, and nanoscale positioning systems. Hands-on exercises include build-your-own flexure kits, CAD and FEA simulations, and term project. Concurrently scheduled with course C162B. Letter grading.


C297A. Rapid Prototyping and Manufacturing. (4) Lecture, four hours; laboratory, two hours; outside study, eight hours. Recommended prerequisite: course 166A or equivalent. Review of stress and strain equilibrium of solids, interfaces, plasticity, and residual/intrinsic stress. Letter grading.

M297B. Mechanical Design for Power Transmission. (4) (Same as Materials Science M297.) Lecture, four hours; outside study, eight hours. Enforced requisite: course 156A or equivalent. Review of elasticity and continuum thermodynamics, multiaxial plasticity, flow rules, cyclic plasticity, viscoplasticity, creep, creep damage in cyclic loading. Damage mechanics: thermodynamic, ductile, creep, fatigue, and fatigue-creep interaction damage analyses: elastic and elasto-plastic analysis. J-integral, brittle fracture, ductile fracture, fatigue and creep crack propagation. Applications in design of high-temperature components such as turbine blade, heat exchangers, connecting rods. Design project involving CAD and FEM modeling. Letter grading.

C297B. Mechanical Design for Power Transmission. (4) (Same as Materials Science M297B.) Lecture, four hours; outside study, eight hours. Enforced requisite: course 156A or equivalent. Review of elasticity and continuum thermodynamics, multiaxial plasticity, flow rules, cyclic plasticity, viscoplasticity, creep, creep damage in cyclic loading. Damage mechanics: thermodymanics, ductile, creep, fatigue, and fatigue-creep interaction damage analyses: elastic and elasto-plastic analysis. J-integral, brittle fracture, ductile fracture, fatigue and creep crack propagation. Applications in design of high-temperature components such as turbine blade, heat exchangers, connecting rods. Design project involving CAD and FEM modeling. Letter grading.

C297C. Composites Manufacturing. (4) (Same as Materials Science M297C.) Lecture, four hours; outside study, eight hours. Enforced requisite: course 138A. Thermodynamics, principles of material processing: phase equilibrium and transitions, transport mechanisms of heat and mass, nucleation and growth of microstructure. Applications: welding, consolidation, chemical vapor deposition, infiltration, composites. Letter grading.
298. Seminar: Engineering. (2 to 4) Seminar, to be arranged. Limited to graduate mechanical and aerospace engineering students. Seminars may be organized in areas of technical fields. If appropriate, field trips may be arranged. May be repeated with topic change. Letter grading.

M299A. Seminar: Systems, Dynamics, and Control Topics. (2) Same as Chemical Engineering M299 and Electrical and Computer Engineering M248B.) Seminar, two hours; outside study, six hours. Limited to graduate engineering students. Presentations of research topics by leading academic researchers from fields of systems, dynamics, and control. Students who work in these fields present their papers and results. S/U grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

495. Teaching Assistant Training Seminar. (2) Seminar, two hours; outside study, four hours. Preparation: appointment as teaching assistant in department. Seminar on communication of mechanical and aerospace engineering principles, concepts, and methods; teaching assistant preparation, organization, and presentation of material, including use of visual aids; grading, advising, and rapport with students. S/U grading.

596. Directed Individual or Tutorial Studies. (2 to 8) Tutorial, to be arranged. Limited to graduate mechanical and aerospace engineering students. Petition forms to request enrollment may be obtained from assistant dean, Graduate Studies. Supervised investigation of advanced technical problems. S/U grading.

597A. Preparation for MS Comprehensive Examination. (2 to 12) Tutorial, to be arranged. Limited to graduate mechanical and aerospace engineering students. Reading and preparation for MS comprehensive examination. S/U grading.

597B. Preparation for PhD Preliminary Examinations. (2 to 16) Tutorial, to be arranged. Limited to graduate mechanical and aerospace engineering students. Reading and preparation for PhD preliminary examinations. S/U grading.

597C. Preparation for PhD Oral Qualifying Examination. (2 to 16) Tutorial, to be arranged. Limited to graduate mechanical and aerospace engineering students. Preparation for oral qualifying examination, including preliminary research on dissertation. S/U grading.

598. Research for and Preparation of MS Thesis. (2 to 12) Tutorial, to be arranged. Limited to graduate mechanical and aerospace engineering students. Supervised independent research for MS candidates, including thesis prospectus. S/U grading.

599. Research for and Preparation of PhD Dissertation. (2 to 16) Tutorial, to be arranged. Limited to graduate mechanical and aerospace engineering students. Usually taken after students have been advanced to candidacy. S/U grading.

MEDICINE David Geffen School of Medicine
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Medicine
310-267-3144
E. Dale Abel, MD, PhD, Chair and Executive Medical Director
José J. Escarce, MD, PhD, Executive Vice Chair, Academic Affairs

Gregory A. Brent, MD, Senior Vice Chair, Academic Affairs
Tisha S. Wang, MD, Senior Vice Chair, Clinical Services
Jodi L. Friedman, MD, Vice Chair, Education

Overview
The principal goal of the Department of Medicine is to educate students in the expert diagnosis and compassionate management of human illness. Building on the biochemical, physiological, and behavioral foundations of the preclinical experience, students are taught information acquisition through history taking, physical examination, and laboratory evaluation; information synthesis through achieving a differential diagnosis and evaluative plan; and medical decision making for continued evaluation and therapy. Students are encouraged and guided in developing a caring physician/patient relationship.

In the department is provided in all four years of medical school, with the third and fourth years constituting a continuum of clinical experience. Students become integrated into a ward team and have significant ambulatory care experiences. They apply and extend their clinical skills, medical knowledge, and judgment in the care of patients assigned to them under the immediate supervision of house officers and attending staff.

The department offers a broad range of advanced clinical clerkships in general and subspecialty ambulatory and hospital-based intern and internal medicine at all the major affiliated centers.

For more details on the Department of Medicine and courses offered, see the department website.

Medicine faculty information is available from the department.

Medicine
Lower-Division Courses
19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

160C. Health Outreach and Education to At-Risk Populations. (4) Seminar, two hours; fieldwork, six to eight hours. Requisites: courses M160A, M160B. Processes involved with designing, delivering, and assessing community health education programs, under supervision of professional staff. S/NP or letter grading.

180. Special Topics in Medicine. (4) Lecture, four hours; discussion, one hour. Medical topics of special interest to undergraduate students. Specific subjects may vary each term depending on particular interest of instructors and students. Topics may include East-West medicine and global medicine. May be repeated for credit with topic or instructor change. P/NP or letter grading.

185. Integrative East-West Medicine for Health and Wellness. (5) Lecture, five hours. Introduction to integrative health care and wellness, particularly therapeutically oriented topics originating from traditional Chinese medicine. Study of theories underlying integrative medicine and traditional Chinese medicine, management of personal well-being through experiential learning of various therapeutic modalities, and evidence-based integrative medicine. Topics include integrative East-West medicine and its role in prevention and health cultivation; herbs, diet, and nutritional supplements; pain management using acupuncture, acupressure, massage, and other self-help techniques; integrative medicine research and evidence-based modalities; chronic stress and implications on sleep, inflammation, and maintaining health. Incorporates hands-on practice and interactive sessions. P/NP or letter grading.

188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SB. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: course 188SA. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to finalize course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced corequisite: course 188SB. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE 885 course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

199. Directed Research in Medicine. (2 to 8) Tutorial, two hours. Limited to junior/senior students. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper may be required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

M256. Interdisciplinary Response to Infectious Disease Emergencies: Medicine Perspective. (4) (Same as Community Health Sciences M256, Nursing M298, and Oral Biology M256.) Lecture, three hours; discussion, one hour. Designed to instill in professional students ideas of common emergency health problems and coordinated response, with specific attention to bioterrorism. Examination of tools to help students prevent, detect, and intervene in infectious disease emergencies. Interdisciplinary sessions also attended by students in Schools of Dentistry, Nursing, and Public Health during weeks two through five. Letter grading.
M260A-M260B. Methodology in Clinical Research I, II (4) (Same as Biostatistics M260A-M260B.) Lecture, four hours. Recommended preparation: MD, PhD, or dental degree. Requisites: Biostatistics 170A, 265A. Course M260A is requisite to M260B. Presentation of principles and practices of major disciplines underlying clinical research methodology, such as biostatistics, epidemiology, pharmacokinetics. S/U or letter grading.

M260C. Methodology in Clinical Research III. (4) (Same as Biostatistics M260C.) Discussion, four hours. Recommended preparation: MD, PhD, or dental degree. Presentation of principles and practices of major disciplines underlying clinical research methodology, such as biostatistics, epidemiology, pharmacokinetics. S/U or letter grading.

M261. Responsible Conduct of Research Involving Humans. (2) (Same as Biostatistics M261.) Lecture, two hours; discussion, two hours. Preparation: completion of one basic course in protection of human research subjects through Collaborative Institutional Training Initiative. Discussion of current issues in responsible conduct of clinical research, including reporting of research, basis for authorship, issues in genetic research, principles and practice of research on human, conflicts of interest, Institutional Review Board (IRB), and related topics. S/U or letter grading.

M263. Clinical Pharmacology. (2) (Same as Biostatistics M263 and Psychiatry M263.) Lecture, two hours. Preparation: completion of professional health sciences degree (MD, DDS, DSCs, or Ph.D). Overview of principles of clinical pharmacology, especially as they relate to clinical and translational medicine and to advances in contemporary medicine such as targetting, gene therapy, and genomics. Letter grading.

M270C. Advanced Modeling Methodology for Dynamic Biomedical Systems. (4) (Same as Bioengineering M270C and Computer Science M270C.) Lecture, four hours; outside study, eight hours. Requisite: Electrical Engineering 141 or 142 or Mathematics 115A or Mechanical and Aerospace Engineering 171A. Development of dynamic systems modeling methodology for physiological, biomedical, pharmacological, chemical, and related systems. Control system, multicompartamental, noncompartmental, and output/input models, linear and nonlinear. Emphasis on model applications, limitations, and relevance in biomedical sciences and other limited data environments. Problem solving in PC laboratory. Letter grading.

M270D. Optimal Parameter Estimation and Experiment Design for Biomedical Systems. (4) (Same as Bioengineering M270D and Biomedical Engineering M270D.) Lecture, four hours; outside study, eight hours. Requisite: course M270C or Bioengineering CM270D. Estimation methodology and model parameter estimation algorithms for fitting dynamic system models to biomedical data. Model discrimination methods. Theory and algorithms for designing optimal experiments for developing and quantifying models, with special focus on optimal sampling schedule design for kinetic models. Exploration of PC software for model building and optimal experiment design via applications in physiology and pharmacology. Letter grading.


M296A-M296B. Methodology in Clinical Research I, II (4) (Same as Biostatistics M296A-M296B.) Lecture, four hours. Recommended preparation: MD, PhD, or dental degree. Requisites: Biostatistics 170A, 265A. Course M296A is requisite to M296B. Presentation of principles and practices of major disciplines underlying clinical research methodology, such as biostatistics, epidemiology, pharmacokinetics. S/U or letter grading.

M296C. Methodology in Clinical Research III. (4) (Same as Biostatistics M296C.) Discussion, four hours. Recommended preparation: MD, PhD, or dental degree. Presentation of principles and practices of major disciplines underlying clinical research methodology, such as biostatistics, epidemiology, pharmacokinetics. S/U or letter grading.

Microbiology, Immunology, and Molecular Genetics

College of Letters and Science and David Geffen School of Medicine

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Microbiology, Immunology, and Molecular Genetics
310-825-8482

Jerome A. Zack, PhD, Chair
Douglas L. Black, PhD, Vice Chair, Academic Personnel
Elissa A. Hallem, PhD, Vice Chair, Graduate Affairs
April D. Pyle, PhD, Vice Chair, Undergraduate Education

Faculty Roster

Professors
Frank U. Alber, PhD
Steven J. Bensinger, VMD, PhD (Sherie and Donald Morrison Professor of Immunology)
Douglas L. Black, PhD
Peter J. Bradley, PhD
Manish J. Butte, MD, PhD (E. Richard Steihm Endowed Professor of Pediatric Allergy, Immunology, and Rheumatology)
Irvin S.Y. Chen, PhD
Gehong Cheng, PhD
James S. Economou, MD, PhD (Louis D. Beaumont Professor of Surgery)
Elissa A. Hallem, PhD
Kent L. Hill, PhD
Alexander Hoffmann, PhD (Thomas M. Asher Endowed Professor of Microbiology)
Marcus A. Horwitz, MD
Patricia J. Johnson, PhD
Donald B. Kohn, MD
Aldons J. Lusis, PhD
Otoniel M. Martinez-Maza, PhD
Megan M. McEvoy, PhD
M. Carrie Miceli, PhD
Jeffery F. Miller, PhD (Fred Kavli Professor of Nanosystems Sciences)
Robert L. Modlin, MD (Arnold W. Klein, MD Professor of Dermatology)
Manuel L. Penichet, MD, PhD
April D. Pyle, PhD (George and Nouhad Ayoub Professor of Life Science Innovation)
Stephen T. Smale, PhD (Sherie L. and Donald G. Morrison Professor of Molecular Immunology)
Maureen A. Su, MD
Owen N. Witte, MD, (University Professor, President’s Professor of Developmental Immunology)
Gerard C.L. Wong, PhD
Otto O. Yang, MD

Jerome A. Zack, PhD (M. Philip Davis Professor of Microbiology and Immunology)
Z. Hong Zhou, PhD

Professors Emeriti
Arnold J. Berk, MD (Presidental Professor Emeritus of Molecular Cell Biology)
Benjamin E. Bonavida, PhD
David A. Campbell, PhD
Asim Dasgupta, PhD
Frederick A. Eiserling, PhD
Lawrence T. Feldman, PhD
C. Fred Fox, PhD
Robert P. Gunsalus, PhD
Rafael J. Martinez, PhD
James N. Miller, PhD
Jeffrey H. Miller, PhD
Sherie L. Morrison, PhD
Debi P. Nayak, BVSc, PhD
Dan S. Ray, PhD
Larry Simpson, PhD
Ronald H. Stevens, PhD
Fuyuhiko Tamaoki, PhD
Christel H. Uittenbogaart, MD
T. Randolph Wall, PhD
 Felix O. Wettstein, PhD
Bernadine J. Wisnieski, PhD

Associate Professors
Yvonne Y. Chen, PhD
Elaine Y. Hisao, PhD (De Logi Professor of Biological Sciences)
Beth A. Lazazzera, PhD
Lili Yang, PhD

Assistant Professors
Anthony J. Covarrubias, PhD
Oliver I. Fregoso, PhD
Melody Man Hing Li, PhD
Theodore S. Nowicki, MD, PhD, in Residence
Timothy E. O’Sullivan, PhD

Adjunct Associate Professor
Imke Schroeder, PhD

Adjunct Assistant Professors
Andrey N. Damianov, PhD
Zulema Romero Garcia, PhD
Jing Wen, PhD

Overview
Microbiology at UCLA is a diverse science that includes bacteriology, virology, immunology, genetics, molecular biology, and the study of single cells. The science has its roots in the fundamental human needs of health, nutrition, and environmental control, and it provides students with opportunities for study in the basic biological fields of genetics and cellular and molecular biology.

Undergraduate Major
Microbiology, Immunology, and Molecular Genetics BS

Undergraduate students majoring in Microbiology, Immunology, and Molecular Genetics prepare for careers in biomedical research, medicine, dentistry, or other health professions, bio-
technology and genetic engineering, industrial microbiology, agricultural or environmental sciences, public health, and law or bioethics, among others. The courses presented by the department lead to a Bachelor of Science degree and depend heavily on preparation in the biological sciences, chemistry, physics, and mathematics.

Learning Outcomes

The Microbiology, Immunology, and Molecular Genetics major has the following learning outcomes:

- Demonstrated knowledge of key disciplinary concepts
- Address scientific questions or solve problems using quantitative, computational, and inquiry-related skills, including developing hypotheses, designing and performing experiments, analyzing data, and interpreting results
- Execution of database searches for scientific literature and bioinformatics data related to investigatory tasks
- Reading, analysis, and use of scientific papers in the development of research projects, in discussions with peers and mentors, and as evidence to substantiate conclusions in written assignments
- Effective written and oral communication skills
- Work effectively in individual and collaborative contexts
- Value research and its relevance to one’s own life and society

Entry to the Major

Transfer Students

Transfer applicants to the Microbiology, Immunology, and Molecular Genetics major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of general biology with laboratory for majors, preferably equivalent to Life Sciences or 3A, 7B, and 7C; one year of calculus; one year of general chemistry with laboratory for majors; and one semester of organic chemistry with laboratory. A second semester of organic chemistry or one year of calculus-based physics is strongly recommended but not required for admission.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Students intending to major in Microbiology, Immunology, and Molecular Genetics may seek counseling and petition to enter the major in the Student Affairs Office, 1602B Molecular Sciences.

Requirements

Preparation for the Major

Life Sciences Core Curriculum

Required: Chemistry and Biochemistry 1DA, 14B, 14BL, 14C, and 14D, or 20A, 20B, 20L, 30A, 30AL, and 30B; Life Sciences 7A, 7B, 7C, 23L; Life Sciences 30A, 30B, and 40 or Statistics 13, or Mathematics 3A, 3B, 3C, and Statistics 13, or 31A, 31B, 32A, and Statistics 13; Physics 1A, 1B, 1C, 4AL, and 4BL, or 5A, 5B, and 5C.

The Major

Two plans are offered by the department.

Plan I—Research Immersion Laboratory

Required: Ten courses as follows: (1) Five foundation courses: Chemistry and Biochemistry 153A, 153B or Microbiology, Immunology, and Molecular Genetics 132, Life Sciences 107, Microbiology, Immunology, and Molecular Genetics 101, C185A, (2) two courses from one of the following groups: (a) Microbiology, Immunology, and Molecular Genetics 103AL and 103BL or (b) 109AL and 109BL, (3) two focus elective courses selected from Chemistry and Biochemistry 153L, Microbiology, Immunology, and Molecular Genetics 102, 105, 106, 107, 132, CM156, 158, 168, CM256, Molecular Cell, and Developmental Biology 138, 165A, and (4) one general elective course selected from any course under item 3 above, Bioengineering 100, CM145, CM178, Biostatistics 100A, Chemistry and Biochemistry 103, 110A, M117, 136, C140, 153B, 153C, 153L, 154, 156, CM160A, 171, C172, C181, Computer Science CM121, C122, CM124, Ecology and Evolutionary Biology 121, C135, 137, 162, Epidemiology 100, Human Genetics C144, Microbiology, Immunology, and Molecular Genetics C122, 174, C185B, 191H, 198C, 199 (may be taken once), Molecular Cell, and Developmental Biology 100, 104AL, 138, M140, C141, 143, 144, C150, 165A, 168, 172, M175A, M175B, M175C, 187AL, Neuroscience M101A, M101B, M101C, Physiological Science 121, 124, 125, 128, Statistics 100A, 100B.

Plan II—Advanced Independent Research

Required: Twelve courses as follows: (1) five foundation courses: Chemistry and Biochemistry 153A, 153B or Microbiology, Immunology, and Molecular Genetics 132, Life Sciences 107, Microbiology, Immunology, and Molecular Genetics 101, C185A, (2) Microbiology, Immunology, and Molecular Genetics 196A, 196B or Molecular Cell, and Developmental Biology 196A, 196B, (3) Microbiology, Immunology, and Molecular Genetics 180A, 180B or Molecular Cell, and Developmental Biology 180A, 180B, (4) two focus elective courses selected from Chemistry and Biochemistry 153L, Microbiology, Immunology, and Molecular Genetics 102, 105, 106, 107, 132, CM156, 158, 168, CM256, Molecular Cell, and Developmental Biology 138, 165A, and (5) one general elective course selected from any course under item 3 above, Bioengineering 100, CM145, CM178, Biostatistics 100A, Chemistry and Biochemistry 103, 110A, M117, 136, C140, 153B, 153C, 156, CM160A, 171, C172, C181, Computer Science CM121, C122, CM124, Ecology and Evolutionary Biology 121, C135, 137, 162, Epidemiology 100, Human Genetics C144, Microbiology, Immunology, and Molecular Genetics C122, 174, C185B, 191H, 198C, 199 (may be taken once), Molecular Cell, and Developmental Biology 100, 104AL, 138, M140, C141, 143, 144, C150, 165A, 168, 172, M175A, M175B, M175C, 187AL, Neuroscience M101A, M101B, M101C, Physiological Science 121, 124, 125, 128, Statistics 100A, 100B.

Graduate Major

Microbiology, Immunology, and Molecular Genetics MS, PhD

The graduate program emphasizes the areas of molecular genetics, cell biology, immunology, cell and virus structure and morphogenesis, animal virology, general bacteriology and physiology, host/parasite relationships, medical mi-
Microbiology, Immunology, and Molecular Genetics

Lower-Division Courses


6. Microbiology for Nonmajors. (4) Lecture, four hours. Not open for credit to students with credit for course 101. Designed for nonscience students; introduction to biology of microorganisms (bacteria, viruses, protozoa, algae, fungi), their significance as model systems for understanding fundamental cellular processes, and their role in human affairs. P/NP or letter grading.

10. Medical Microbiology for Nursing Students. (4) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 30A or 30B or Mathematics 3A or 31A. Limited to nursing majors. Introduction to biology of microbial pathogens, their role in development of human immune response, and presentation of symptoms and disease caused by microbial infections. Letter grading.


18. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth with supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

99. Student Research Program. (1 to 2) Tutorial, supervised research (one week to five weeks only). Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

100L. Microbiology Laboratory for Professional Schools. (3) Lecture, two hours; laboratory, four hours. Disease factors. Letter grading.

101. Advanced Virology. (4) Lecture, 26 hours; discussion, one hour. Requisites: Life Sciences 3 and 4, or 7A, 7B, and 23L. Historical foundations of microbiology, introduction to bacterial structure, physiology, biochemistry, genetics, and ecology. Letter grading.

102. Advanced Virology. (4) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 3, or 7A, 7B, and 23L with grades of C- or better. Biological properties of bacterial and animal viruses, replication, methods of detection, interactions with host cells and multicellular hosts. Letter grading.

103AL. Research Immersion Laboratory in Microbiology. (8) Lecture, two and one half hours; laboratory, eight hours. Requisites: course 101, Life Sciences 3, 4, and 23L, or 7A, 7B, and 23L. Course 103AL is requisite to 103BL. Limited to Microbiology, Immunology, and Molecular Genetics premajors and majors. Designed to provide students authentic, discovery-based research experience in all fields of biology and biomedicine. Seminar forum whereby students use bioinformatics or mathematical modeling software to interpret, expand, or refine datasets. Use of graphics software to prepare figures and illustrations for presentations, posters, and websites (database entries). Research accomplishments discussed in seminar-style meetings in which student groups create PowerPoint slides and formally present results to class. Production of team poster and final report describing entire research project required. P/NP or letter grading.

105. Biological Microscopy. (4) Lecture, four hours; laboratory, three hours (five weeks only). Requisite or corequisite: Physics 1C or 5B or 6C. Introduction to modern microscopy technology (fluorescence, confocal, electron microscopy, electron tomography, and three-dimensional cryo-electron microscopy) and other scanning probe microscopy modalities. Practical experience in research provided through five carefully designed electron microscopy laboratory modules. P/NP or letter grading.


109AL. Research Immersion Laboratory in Microbi- ology. (3) Lecture, three hours; laboratory, eight hours. Requisites: course 101, Life Sciences 3, 4, and 23L, or 7A, 7B, and 23L. Course 109AL is enforced requisite to 109BL. Limited to Microbiology, Immunology, and Molecular Genetics premajors and majors and Molecular, Cell, and Developmental Biology majors. Research-oriented laboratory experience designed to promote discovery of novel pathogens. Working in teams, students conduct research projects that incorporate techniques in microbiology and molecular biology and involve use of bioinformatics tools and phylogenetics software for data analysis. Emphasis on reading and understanding scientific literature as well as improving critical thinking skills such as ability to create and evaluate hypotheses or experimentally address scientific questions. Critical aspects of research process, including record keeping, ethics, laboratory safety and citizenry, mechanics of scientific writing, and project responsibilities and ownership. Letter grading.

109BL. Advanced Research Analysis in Microbiologi- y. (4) Laboratory, six hours. Requisites: course 109AL, Life Sciences 40 or Statistics 13. Limited to Microbiology, Immunology, and Molecular Genetics premajors and majors and Molec- ular, Cell, and Developmental Biology majors. Research-oriented laboratory experience designed to promote discovery of novel pathogens. Working in teams, students conduct research projects that incorporate techniques in microbiology, virology, and molecular biology and involve use of bioinformatics tools and computational analysis software. Emphasis on reading and understanding scientific literature as well as improving critical thinking skills such as ability to create and evaluate hypotheses or experimentally address scientific questions. Critical aspects of research process, including record keeping, ethics, laboratory safety and citizenry, mechanics of scientific writing, and project responsibilities and ownership. Letter grading.

112. Mouse Molecular Genetics. (2) Seminar, two hours. Requisites: Life Sciences 4, or 7A, 7B, and 7C. Designed for students doing research with mice. During past 25 years, molecular revolution has greatly increased power and scope of mouse genetics, and today mouse is primary experimental model in virtually all fields of biology and biomedicine. Seminar forum for in-depth discussion of tools and technologies of mouse genetics, and their application to understand the functional genomics, complex traits, stem cell biology, development biology, epigenetics, and genetic dissection of diseases. Concurrently scheduled with course 222Z. P/NP or letter grading.

123. Advanced Annotation and Comparative Ge- nomics. (4) Lecture, two and one half hours; computer laboratory, six hours. Requisite: course 103AL or Molecular, Cell, and Developmental Biology 187AL with grade of B- or better. Participation in discovery-
based research experience, working as research team to analyze microbial genomes using bioinformatics techniques involving variety of online databases. Investigation of organism and structures as means to discover novel genes and unusual variations in classical systems. Results of high-quality annotation efforts may lead to publication in peer-reviewed science journal. Part of DOE Joint Genome Institute Undergraduate Education and Training program. Offered in summer only. Letter grading.


C134. Ethics and Accountability in Biomedical Research. (2) Seminar, two hours. Designed for graduate students and undergraduates who have credit for life sciences or biomedical individual studies 199 course. Responsibilities and ethical conduct of investigators in sciences or biomedical individual studies 199 course. Limited to junior/senior USIE facilitators. May be repeated for credit. Letter grading.

188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced requisite: course 188SB. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating life sciences course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

189H. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Design of individual study to meet requirements. Individual study with course lecture instructor to explore topics in greater depth through supplemental readings, papers, or other activities and led by lecture instructor. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

191H. Honors Research Seminars: Microbiology, Immunology, and Molecular Genetics. (2) Seminar, two hours. Enforced corequisite: course 180A or 189A or 189B. Limited to senior microbiology, immunology, and molecular genetics honors program students. Discussion of current research literature, with emphasis on thesis topics areas that students are working on as part of departmental honors requirements. One-hour presentation of student thesis research and current literature associated with it required. May be repeated for credit. P/NP or letter grading.

192. Undergraduate Practicum in Microbiology, Immunology, and Molecular Genetics. (2) Seminar, six hours. Limited to junior/senior departmental majors. Training and supervised practicum for advanced undergraduate students. Seminar, one hour and life sciences major or major grade-point average, and at least one term of prior experience in laboratory of departmental faculty. May not be repeated. Letter grading.

193. Journal Club Seminars: Microbiology, Immunology, and Molecular Genetics. (1) Seminar, one hour. Limited to undergraduate students. Discussion of readings selected from current literature in microbiology, immunology, and molecular genetics field. P/NP or letter grading.

194. Research Group Seminars: Microbiology, Immunology, and Molecular Genetics. (1) Seminar, one hour. Designed for undergraduate students who are part of research group in department faculty laboratory. Discussion of research methods and current literature in field or of research of faculty members or students. Enforced corequisite: Honors Seminar, six hours. Limited to senior microbiology, immunology, and molecular genetics honors program students. One-hour presentation of student thesis research and current literature associated with it required. May be repeated for credit. P/NP or letter grading.


199. Undergraduate Research in Microbial Genome Annotation efforts may lead to publication in peer-reviewed science journal. Part of DOE Joint Genome Institute Undergraduate Education and Training program. Offered in summer only. Letter grading.

M178. Quantitative Regulatory Biology and Signal Transduction. (4) Same as Computational and Systems Biology M178 and Physiological Science M178. Lecture, five hours; discussion, one hour. Requisites: Life Sciences 7A, 7B, 7C, 30A, 30B. Introduction to key biological regulatory circuit motifs and systems biology concepts that are critical to understanding how cellular responses are controlled. Letter grading.

180C. Journal Club Seminars: Microbiology, Immunology, and Molecular Genetics. (2) Seminar, two hours. Enforced corequisite: course 196A or 196B. Students read and discuss scientific articles and give presentations, introducing research topics to the community literature. Critical aspects of research process, including record keeping, ethics, laboratory safety and citizenship, mechanics of scientific writing, diverse approaches to research, and project responsibilities and ownership. Acquisition of in-depth and broad knowledge about student research projects, improvement of oral and written communication skills, and full appreciation of process of doing good science and becoming skilled researchers. Letter grading.

180B. Scientific Analysis and Communication II. (2) Seminar, two hours. Enforced requisites: course 180A and Life Sciences 40 or Statistics 13. Enforced corequisite: 196A or 196B. Students present different topics such as research posters and present scientific posters. Production of deliverables that demonstrate research achievements and creation of sense of pride for work accomplished as skilled researchers. Letter grading.


1885C. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced requisite: course 1885B. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topics, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

Graduate Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Instructor(s)</th>
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<tbody>
<tr>
<td>C222</td>
<td>Mouse Molecular Genetics. (2) Seminar, two  hours.</td>
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<tr>
<td>C229</td>
<td>Molecular Mechanisms of Host/Pathogen Interaction. (4)</td>
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<tr>
<td>C234</td>
<td>Ethics and Accountability in Biomedical Research. (2) Seminar, two hours.</td>
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Military Science – Army ROTC

Faculty Roster

Professor
Don D. Sheppard, MA, Lieutenant Colonel

Adjunct Assistant Professors
Christopher Z. Barra, MBA, MA, Brigadier General
Katie Carrigan, BS, First Lieutenant
Casey L. Coyle, BA, Captain
Michael G. Crosen, BA, Captain
William N. Ritch, MA, Major
Anthony K. Tavantzis, BA, Captain

Overview

In accordance with the National Defense Act of 1920 and with the concurrence of the Regents of the University of California, a unit of the Army Senior Division Reserve Officers’ Training Corps (ROTC) was established on the Los Angeles campus of in July 1920. Navy and Air Force units were established in 1938 and 1949 respectively.

This voluntary training in the Army ROTC program allows students to qualify for an officer’s commission in the Army while completing their college education. The ROTC curricula are not considered academic majors, but ROTC courses may be taken as free electives and applied toward the total course requirements of a major. For students contracted in the Military Science Department, 26 units of military science credit may be applied toward the requirements for the bachelor’s degree. The ROTC program is also available through UCLA Extension.

All three ROTC departments offer voluntary four- and three-year programs for first years
Students may select a branch of the Army in which to be commissioned from 16 specialty fields, including military intelligence, aviation, signal communications, finance, logistics, nursing, and engineering. Prior to completion of the ROTC program, students may request to go on active duty or serve part-time in the Army Reserve or National Guard.

Undergraduate Study
Students aspiring to become Army officers follow prescribed course sequences with the Military Science Department and a physical fitness program. Generally, the courses consist of one 2- to 4-unit course per term and physical fitness sessions one to three times per week, depending on the participation-level requirements.

The military science curriculum is divided into two parts: (1) the Basic Course, two years of lower-division study during which students must complete all military science courses and (2) the Advanced Course, two years of upper-division study consisting of six military science courses, one military history course, and a five-week summer camp.

Army ROTC students must satisfy the military history requirement by completing Military Science 110 or another history course approved by the chair.

Transfer students and others who were unable to enroll in the Basic Course can receive equivalent credit in several different ways (see Two-Year Program below).

Admission to the Advanced Course is limited to selected students who meet all academic and physical requirements. Students in this course receive a subsistence allowance of $420 per month for 10 months during each of the two academic years, plus military science uniforms. After completion of the Advanced Course and graduation, students have the opportunity to be commissioned as second lieutenants in one of the Army's 16 specialty areas in either the Army National Guard, Reserves, or Active Army. Students' preferences are a major factor in determining which specialty is awarded.

Students selected for Advanced ROTC must attend a five-week leadership development and assessment course before entrance into the Advanced Course (see Two-Year Program below).

Four-Year Program
Students are enrolled in the Basic Course (freshman and sophomore years) on a voluntary basis. After completion of the Basic Course and before entrance into the Advanced Course (junior and senior years), students are required to execute a contract with the Department of the Army agreeing to complete the Advanced Course and accept a commission if offered.

Two-Year Program
The two-year program is designed for students who receive placement credit for two years of ROTC and directly enter the Advanced Course. Placement credit may be given for completing three years of high school Junior ROTC, attending a paid ROTC Leader's Training Course, membership in the Army Reserves or National Guard, completing two years of college-level Air Force or Navy ROTC, or previous active duty military service. The Army also allows enrollment in the two-year program while students attend graduate school.

Commissioning
Successful completion of the Advanced Course program and a bachelor's degree may lead to a commission as a second lieutenant in the Army Reserves, National Guard, or Active Army.

Military Science
Lower-Division Courses

2. Leadership Laboratory. (No credit) Laboratory, three hours (lower-division cadets) or four hours (upper-division cadets). All cadets must be concurrently enrolled in a military science course; upper-division cadets must also be under a contracted obligation with department. Designed to allow cadets to apply leadership techniques and military skills taught in classroom and to develop their confidence as future military officers. No grading.

11. Foundations of Officership. (2) Lecture, one hour. Introduction to issues and competencies that are central to commissioned officer's responsibilities. Framework established to understand officership, leadership, military customs, briefings, and life skills such as physical fitness, nutrition, and time management. P/NP or letter grading.

12. Basic Military Leadership. (2) Lecture, one hour. Required: course 11. Introduction to fundamentals of leadership, Army leadership values, ethics, and counseling techniques. Foundation of basic leadership fundamentals central to commissioned officer's responsibilities established. P/NP or letter grading.


19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual interest, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.
sent for leadership development. Introduction to and application of military planning process in developing operations orders. P/NP or letter grading.

23. Subordinate Development and Army Organization. (3) Lecture, two hours. Requisite: course 22. Discussion/application of team-building techniques and subordinate development, through combined lecture, discussion, and experiential learning, with additional focus on commissioned officer, branches, and Army organization. Application of counseling techniques, motivation, and consideration of ethics and values for modern leaders. P/NP or letter grading.

Upper-Division Courses

110. U.S. Military History. (3) Lecture; three hours; discussion, one hour. Survey of American military history from 1860 to the present. Causes of war, strategy, tactics, and technological developments set against economic, political, and diplomatic concerns. Impact of warfare on society.

131. Tactical Planning and Analysis. (4) Lecture, three hours; laboratory, four hours. Introduction to basic principles of tactics. Emphasis on conducting individual and small unit training as well as evaluation of syllabus. Individual contract with faculty mentor to finalize course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.


133. Leadership and Problem Solving. (4) Lecture, three hours; laboratory, four hours. Examination of roles and responsibilities of leaders in various contexts. Focus on general communication theory as well as written and spoken communication skills. Examination of communication abilities and leadership development and assessment. P/NP or letter grading.

141. Leadership and Management. (4) Lecture, three hours; laboratory, four hours. Interactive course to enhance student understanding of organizational culture, leadership, and ethics. Understanding and enhancement of leader-member relations, assessment of organizational culture and ethical climate, and how to effect change in organizations. Examination of foundations of military law and law of war. P/NP or letter grading.

142. Leadership, Ethics, and Military Law. (4) Lecture, three hours; laboratory, four hours. Interactive course to enhance student understanding of organizational culture, leadership, and ethics. Understanding and enhancement of leader-member relations, assessment of organizational culture and ethical climate, and how to effect change in organizations. Examination of foundations of military law and law of war. P/NP or letter grading.

144. Officerhood: Professional Military Leadership. (4) Lecture, three hours; laboratory, four hours. Capstone interactive leadership course to prepare students for challenges of being commissioned officers in U.S. Army by discussing various leadership challenges and case studies. Study of military units, with specific emphasis on joint operations involving Army, Navy, Air Force, and Marine Corps assets, military operations other than war, and global war on terror. Other topics include personnel administration, maintenance management, and financial planning. P/NP or letter grading.


188SB. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced requisite: course 188SA. Enforced corequisite: Honors College 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to finalize course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced requisite: course 188SB. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE 885 cd. Individual contract with faculty mentor required. May not be repeated. Letter grading.

197. Individual Studies in Military Science. (2 to 4) Tutorial, four hours. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Molecular and Medical Pharmacology

David Geffen School of Medicine

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Molecular and Medical Pharmacology

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Department e-mail

Stephen C. Cannon, MD, PhD, Interim Chair
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R. Michael van Dam, PhD, Vice Chair, Crump Institute
Lily Wu, MD, PhD Vice Chair, Equity, Diversity, and Inclusion
Ting-Ting Wu, PhD, Vice Chair, Education

Faculty Roster

Professors
Steven J. Bensinger, VMD, PhD (Sherie and Donald Morrison Professor of Immunology)
Dale E. Bredesen, MD, in Residence
Samson A. Chow, PhD
Timothy F. Cloughesy, MD
Johannes Czernin, MD
Magnus Dahlbom, PhD, in Residence
Timothy R. Donahue, MD (Gary Shandling Professor of Pancreatic Surgery)
Steven M. Dubinett, MD
James S. Economou, MD, PhD (Louis D. Beaumont Professor of Surgery)
Frederick (Fritz) C. Eilber, MD
Thomas G. Graeber, PhD
Ming Guo, MD, PhD (Laurie and Steven C. Gordon Professor of Neurosciences)
Aron F. Hadjioannou, PhD
Jing Huang, PhD

Michael E. Jung, PhD (Walter and Shirley Wang Endowed Professor of Medicinal Drug Discovery)
Daniel L. Kaufman, PhD
Donald B. Kohn, MD
Harley I. Kornblum, MD, PhD, in Residence
Paul A. Krogsstad, MD, PhD
Raphael D. Levine, PhD
Linda M. Liu, MD, MBA, PhD (W. Eugene Stern Professor of Neurosurgery)
Gerald S. Lipshultz, MD, in Residence (Joan S. and Ralph N. Goldwyn Endowed Professor of Immunobiology and Transplantation Research)
Roger S. Lo, MD, PhD
Eddythe D. London, PhD, in Residence (Thomas P. and Katherine K. Pike Professor of Addictive Studies)
John C. Mattila, MD, PhD
Robert M. Prins, PhD
Caius G. Rudu, MD
Srinivasa T. Reddy, PhD, in Residence
Antoni Riba, MD
Orian Shihirai, MD, PhD
Desmond J. Smith, MD, PhD
Hsian-Rong Tseng, PhD
R. Michael van Dam, PhD
Owen N. Witte, MD (University Professor, President’s Professor of Developmental Immunology)
Lily Wu, MD, PhD
Xia Yang, PhD

Professors Emeriti
Jorge R. Barrio, PhD
Arthur K. Cho, PhD
Cameron B. Gundersen, PhD
Sherril G. Howard, PhD
Sung-Cheng (Henry) Huang, DSc
Louis J. Ignarro, PhD (Nobel laureate, Jerome J. Belzer Professor Emeritus of Medical Research)
William P. Meleaga, PhD
Richard W. Olsen, PhD
Nagichettai Satyamurthy, PhD
Heinrich R. Schelbert, MD, PhD
Ren Sun, PhD
Anna M. Wu, PhD

Associate Professors
Vatche G. Agopian, MD, in Residence
Heather R. Christofk, PhD
Peter M. Clark, PhD
Huiling Li, PhD
Jennifer M. Murphy, PhD
David A. Nathanson, PhD
S. Saman Sadeghi, PhD, in Residence
Tanya I. Stoyanova, PhD
Ting-Ting Wu, PhD, in Residence

Assistant Professors
Ajit S. Divakaruni, PhD
Tikvah K. Hayes, PhD
Oluwatayo Ikotun, PhD
Tara TeSlaa, PhD
Hans David S. Ulmert, PhD, in Residence

Adjunct Professors
Vathilingara Arumugaswami, PhD
Robert D. Damoiseaux, PhD

Adjunct Associate Professors
Linsey Stiles, PhD
Graduate Major
Molecular and Medical Pharmacology, MS, PhD

The Department of Molecular and Medical Pharmacology offers Master of Science (MS) and Doctor of Philosophy (PhD) degrees in Molecular and Medical Pharmacology, but does not admit applicants who seek only an MS degree.

Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Molecular and Medical Pharmacology

Overview
The Department of Molecular and Medical Pharmacology offers an opportunity for gifted students to work with accomplished faculty members toward making novel discoveries in basic and clinical research. Departmental research interests span a broad range of studies by integrating biological, physical, engineering, and medical sciences to explore mechanisms of disease in biological systems from in silico through a single cell to the whole organism level, while encompassing patient studies. Faculty members strive to understand basic biological systems and disease states and, where appropriate, to use these observations to develop both new molecular diagnostic technologies and new molecular therapeutics.

Graduate Study
The department also offers two MD/PhD programs concurrently with the Geffen School of Medicine. One is the Medical Scientist Training Program (MSTP) in which candidates are medical students that have been accepted into MSTP by the School of Medicine in order to qualify. The second is the Specialty Training and Advanced Research (STAR) program in which candidates are post-MD house-staff (interns, residents, or fellows) who have been accepted into the STAR Program by its selection committee in order to qualify. The department, together with the Division of Laboratory Animal Medicine, offers PhD or postdoctoral training combined with residency training for veterinarians (with DVM or DVM/PhD degrees) in the Veterinary Investigator in Scientific Training and Advancement (VISTA) program.

Note: There is no degree program in pharmacy at UCLA.

Institutes and Centers
With the department as home to the Crump Institute for Molecular Imaging; and the Ahmanson Translational Imaging Division—with its nuclear medicine and positron emission tomography (PET) imaging research and clinical service—students have access to state-of-the-art science and technology, and the opportunity to make a direct impact on patient care. In addition, the department is home to the Business of Science Center. This program supplies education, experience, and industry mentorship to graduate students in the department and in other academic programs to prepare them for professional careers.

Graduate Courses

200. Introduction to Laboratory Research. (8) Laboratory, eight to 20 hours. Individual projects in laboratory research for beginning graduate students. At end of each term students submit to their supervisor reports covering research performed. Pharmacology graduate students must take this course three times during their first two years in residence. Letter grading.

M205A. Introduction to Chemistry/Biology Interface. (2) (Same as Chemistry CM205A.) Lecture, three hours; discussion, one hour. Examination of current importance in pharmacology. Emphasis on recent contributions of special interest to advanced PhD candidates and faculty. Letter grading.

M205B. Issues on Chemistry/Biology Interface. (2) (Same as Chemistry CM205B.) Seminar, one hour. Required of all first year students. May be repeated for credit. Letter grading.

M227. Business of Science, (2) Seminar, two hours. Emphasis on principles of business and entrepreneurship in technology sectors. Basic business skills taught to effectively perform in commercial environment and within academic environment. Application of course material by performing feasibility studies that have potential to receive funding and become actual companies. Exploration of entrepreneurship, particularly formation and operation of new business ventures. Presentations by and questioning of successful technology entrepreneurs, identifying and evaluating new ventures, opportunities, development of financing, and entry and exit strategies. S/U grading.

M228. Gene Therapy. (4) Lecture, three hours; discussion, one hour. Examination of current importance in pharmacology. Emphasis on recent contributions of special interest to advanced PhD candidates and faculty. Letter grading.

M229. Special Topics in Pharmacology. (4) Lecture, four hours. Examination of current importance in pharmacology. Emphasis on recent contributions of special interest to advanced PhD candidates and faculty. Letter grading.


M237. Introduction to Toxicology. (4) (Same as Pathology M237.) Lecture, two hours; discussion, two hours. Required of all first year students. May be repeated for credit. Letter grading.

M238. Pathologic Changes in Toxicology. (4) (Same as Pathology M238.) Lecture, two hours; discussion, two hours. Required of all first year students. May be repeated for credit. Letter grading.

M256. Business of Science: Exploring Entrepreneurship Seminar. (2) Seminar, one hour. Limited to graduate students. Required of all first- and second-year students. Preparation and presentation of graduate student research progress. Letter grading.

M257. Introduction to Toxicology. (4) (Same as Pathology M237.) Lecture, two hours; discussion, two hours. Required of all first year students. May be repeated for credit. Letter grading.

M258. Pathologic Changes in Toxicology. (4) (Same as Pathology M238.) Lecture, two hours; discussion, two hours. Required of all first year students. May be repeated for credit. Letter grading.


M284. Introduction to Molecular Imaging. (4) (Same as Bioengineering M284.) Lecture, three hours; discussion, two hours. Required of all first year students. May be repeated for credit. Letter grading.

M285. Cancer Imaging. (4) Lecture, three hours; discussion, one hour. Required of all first year students. May be repeated for credit. Letter grading.

M286. Business of Science: Exploring Entrepreneurship Seminar. (2) Seminar, one hour. Limited to graduate students. Required of all first- and second-year students. Preparation and presentation of graduate student research progress. Letter grading.
new hypotheses, and construct research projects, un- derstand balance of importance, novelty, and feasibility, and develop ability to think independently, cre- atively, and comprehensively. Letter grading.


MOLECULAR BIOLOGY
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Molecular Biology
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Faculty Committee
Hilary A. Coller, PhD (Molecular, Cell, and Developmental Biology)
Feng Guo, PhD (Biological Chemistry)
Elissa A. Hallerm, PhD (Microbiology, Immunology, and Molecular Genetics)
Alvaro Sagasti, PhD (Molecular, Cell, and Developmental Biology)
Thomas A. Vallim, PhD (Biological Chemistry, Medicine-Cardiology)

Overview
The Doctor of Philosophy (PhD) in Molecular Biology is offered under the supervision of an interdepartmental committee. The Molecular Biology Institute serves this committee and the various departments concerned in support of faculty research and teaching associated with the PhD program. Staff members are from participating departments and from the Molecular Biology Institute. Areas for study include cell biology, developmental biology and neurobiology, nucleic acid biochemistry, gene regulation, immunobiology, microbiology/virology and pathogenesis, molecular evolution and paleobiology, oncogenes and signal transduction, plant molecular biology, protein and enzyme structure and function, genomics, bioinformatics, and structural biology.

Graduate Major

Molecular Biology MS, PhD

Requirements

Official, specific degree requirements are de- tailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more de- tailed guidelines may be outlined in announce- ments, other publications, and websites of the schools, departments, and programs.

Molecular Biology

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of recovery at UCLA. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (su- pervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-divi- sion students under guidance of faculty mentor. Students must be in good academic standing and enroll in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Graduate Courses

M202. Advanced Topics in Cryogenic Electron Mi- croscopy. (3) Same as Biological Chemistry M202. Lecture, two hours; discussion, one hour. Students master advanced topics in membrane protein biology, and learn both theory and practice of cryogenic electron microscopy (cryo-EM) as emerging technology in structural biology. Cryo-EM methodologies covered include cryotomography, single particle reconstruc- tion, electron crystallography, and microcrystal elec- tron diffraction. Letter grading.

235. Rigor and Reproducibility. (2) Lecture, one hour; discussion, one hour. Two cornerstones of science advance- ment are rigor in designing and performing sci- entific research and ability to reproduce biomedical re- search findings. Applications of rigor ensure robust and unbiased experimental design, methodology, analysis, interpretation, and reporting of results. When results can be reproduced by multiple scientists, it val- idates original results and readiness to progress to next phase of research. Scientific rigor is strict appli- cation of scientific method to ensure unbiased and well-controlled experimental design, methodology, analysis, interpretation, and reporting of results. Covers literature and videos on rigor and reproduc- ibility in biomedical research. Discussion of issues raised by lecture, or case-studies, with training pro- gram faculty. Students learn that reproducibility is a common problem in biomedical research and how to improve it. S/U grading.

252. Writing for Science (1) Seminar, one hour. Core- quisite: Biological Chemistry 251A or 251B or 251C. Limited to first-year Molecular Biology PhD students. Development of specific skills in scientific writing within context of one advanced course on mechanics of gene transcription. Letter grading.

254A. Concepts in Molecular Biosciences. (3) Lecture, three hours; discussion, two hours. Limited to human genetics and molecular biology graduate stu- dents. Five-week course covering four basic experi- mental approaches of biochemistry and molecular bi- ology in context of various specific topics, including (1) structural biology, with protein and nucleic acid structure and molecular recognition, (2) use of cell-free and purified in vitro systems to dissect reaction mech- anisms, (3) biochemical approaches to dissecting complex reactions/pathways in cells, and (4) enzymo- logy and protein chemistry. Letter grading.

254B. Concepts in Molecular Biosciences. (3) Five- week course. Lecture, three hours; discussion, two hours. Enforced requisites: courses 254A, 254B, 254C. Application of biochemical, molecular biolog- ical, genetic, and cell biological approaches to under- stand specialized topics in life and biomedical sci- ences, including developmental disease, stem cell bi- ology, synaptic transmission in nervous system, cancer, and heart disease. Letter grading.

255. Scientific Writing. (3) Lecture, two hours; discus- sion, one hour. Limited to first-year Molecular Biology PhD students. Improvement of academic literacy through development of specific skills in scientific writing. Review of principles of effective writing using practical examples and exercises. Topics include prin- ciples of good writing, tricks for writing faster and with less anxiety, format of scientific manuscripts, art of editing, and issues in publication and peer review. Letter grading.

256. Current Topics in Molecular Biology. (2) Student presentation/seminar, two hours. Students present oral critiques and participate in discussions on as- signed topics. S/U grading.

300. Entering Mentoring Training Program. (1) Sem- inar/discussion, 90 minutes. Limited to 25 graduate students. Offers formal training on effective mentoring of undergraduate students in science laboratories. Pri- ority given to those who either have prior experience as mentor or are currently mentoring undergraduates; however, all are encouraged. Exploration of mentoring strategies through lecture, collaborative learning, and case studies. Topics include maintaining effective communication, aligning expectations, addressing eq- uity and inclusion, fostering independence, cultivating ethical behavior, and articulating mentoring philos- ophy. S/U grading.


596. Directed Individual Studies. (2 to 12) Tutorial, to be arranged. Directed individual research or study. May be repeated for maximum of 12 units. S/U grading.

599. PhD Dissertation Research and Writing. (2 to 12) Tutorial, to be arranged. Directed individual studies for students who have advanced to candidacy. May be repeated for maximum of 12 units. S/U grading.
Overview

The revolution in modern biology that began with the elucidation of the structure of DNA by Watson and Crick in the 1950s has had a profound effect not only on biological research, but on the way biology is taught as a subject. The field of biology spawned by this discovery, generally called molecular biology, has provided an entirely new framework within which to approach questions in cell and developmental biology. The specializations, both technical and conceptual, demanded by this field have led to the growth of molecular biology and its related disciplines into an essentially separate branch of scientific inquiry.

Students who complete the requirements for the Bachelor of Science (BS) degree in the Department of Molecular, Cell, and Developmental Biology are exceptionally well prepared to pursue careers in cellular and subcellular biological research, biomedical research, or medicine or allied health fields. The degree combines essential background studies in mathematics, chemistry, and physics with a general introduction to all of the biological subjects, as well as in-depth exposure to key topics in molecular, cell, and developmental biology. The PhD degree offers opportunity for advanced concentrated study and requires independent and innovative research that ultimately results in publishable dissertation materials.

Undergraduate Major

Molecular, Cell, and Developmental Biology BS

The Bachelor of Science degree in Molecular, Cell, and Developmental Biology (MCDDB) is designed especially for students who intend to go on to postgraduate work in biology or medicine and for students aiming for entry-level positions in biotechnology-related fields. Students are exposed to basic biological and molecular concepts underlying recent technical advances in molecular, cell, and developmental biology of animals and plants. Areas of emphasis include cell biology, immunology, molecular biology, plant biology, developmental biology, and neurobiology, among others.

Learning Outcomes

The Molecular, Cell, and Developmental Biology major has the following learning outcomes:

- Broad knowledge of the fundamental tenets of molecular, cell, and developmental processes
- Through use of the scientific method, demonstrated ability to test questions and solve problems using quantitative and inquiry-related skills
- Demonstrated ability to ask questions about primary scientific literature within the discipline
- Demonstrated analytical skills to evaluate primary scientific literature within the discipline
- Effective written and oral communication of laboratory findings
- Demonstrated appropriate awareness of issues associated with responsible conduct of research

Entry to the Major

Transfer Students

Transfer applicants to the Molecular, Cell, and Developmental Biology major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of general biology with laboratory for majors, preferably equivalent to Life Sciences 7A, 7B, 144, and 145, one year of calculus, one year of general chemistry with laboratory for majors, and one semester of organic chemistry with laboratory. A second semester of organic chemistry or one year of calculus-based physics is strongly recommended but not required for admission.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major

Life Sciences Core Curriculum

Required: Chemistry and Biochemistry 14A, 14B, 14BL, 14C, and 14D, or 20A, 20B, 20L, 30A, 30AL, and 30B; Life Sciences 7A, 7B, 7C, 23L; Life Sciences 30A, 30B, and 40 or Statistics 13, or Mathematics 3A, 3B, and 3C, or 31A, 31B, and 32A; Physics 1A, 1B, 1C, 4A, and 4BL, or 5A, 5B, and 5C.

The Major

Required Courses: Chemistry and Biochemistry 153A, Life Sciences 107, Molecular, Cell, and Developmental Biology 138, 144, 165A, and one laboratory course from Molecular, Cell, and Developmental Biology 104AL, 150AL, 187AL, or 198B. Students completing the Biomedical Research minor may satisfy the laboratory requirement with Molecular, Cell, and Developmental Biology 198C.

Electives: A total of 20 upper-division elective units must be completed. At least 10 units must be taken from molecular, cell, and developmental biology (except 100, 104AL, 138, 144, 145, 150AL, 165A, 187AL, 192A, 192B, 193, 194A, 194B, or 199), Chemistry and Biochemistry C100, 153C, 153L, C159, CM160A, Computer Science CM124, CM186, Microbiology, Immunology, and Molecular Genetics 100L, 101, 102, 105, 158, 168, 174, C185A, Physiological Science 121, 125, or 174, of which at least 5 units must be molecular, cell, and developmental biology courses. The remaining 10 units may be taken from the above courses or from Biostatistics 100A or Statistics 100A, Ecology and Evolutionary Biology 110, 121, 162, Human Genetics C144, or Physiological Science 166.
Honors Program

The core of the program consists of at least one approved undergraduate seminar course from Molecular, Cell, and Developmental Biology 145, 180A, 180B, 191, Biomedical Research 193H, or 194H, and three research courses (12 units minimum) from Molecular, Cell, and Developmental Biology 198A, 198B, and 198C, culminating in a thesis. Biomedical Research 193H and 194H are not accepted as electives for the major.

Computing Specialization

Majors in Molecular, Cell, and Developmental Biology may select a specialization in Computing by (1) satisfying all the requirements for a bachelor’s degree in the major, (2) completing Program in Computing 10A, 10B, 10C, 16A, and Life Sciences 40 or Statistics 13, and (3) completing one course from Computer Science CM124, CM156, Chemistry and Biochemistry C100, CM160A, Molecular, Cell, and Developmental Biology 187AL, or Physiological Science 125. A grade of C or better is required in each course, with a combined grade-point average in the specialization of at least 2.0. Students must petition for admission to the program and are advised to do so after completing Program in Computing 10B (petitions should be filed in the Student Affairs Office). Students graduate with a bachelor’s degree in their major and a specialization in Computing.

Policies

Preparation for the Major

Each core curriculum course must be passed with a grade of C– or better, and all courses must be completed with an overall grade-point average of 2.0 or better. Students receiving grades below C– in two required courses (12 units minimum) from Molecular, Cell, and Developmental Biology 198A, 198B, and 198C, culminating in a thesis. Biomedical Research 193H and 194H are not accepted as electives for the major.

The Major

Credit for a maximum of two upper-division courses, either in separate courses or repetitions of the same course, are subject to dismissal from the major.

Honors Program

Admission

The honors program provides exceptional Molecular, Cell, and Developmental Biology majors with the opportunity to do research culminating in an honors thesis. Junior and senior majors who have completed all university-level coursework, including all preparation courses and requirements for the major with an overall grade-point average of 3.0 or better and a 3.5 GPA or better in the required major courses, may apply for admission to the honors program. Students must have the sponsorship of an approved faculty adviser.

For more information, students should contact the Student Affairs Office, 128 Hershey Hall, early in their educational planning.

Requirements

To qualify for graduation with honors, students must satisfactorily complete all requirements for the honors program and the major and obtain at least an overall 3.0 grade-point average and a 3.5 GPA or better in coursework required for the major. On recommendation by the faculty sponsor and with approval of the thesis by the departmental honors committee, students are awarded no honors or departmental honors.

Graduate Majors

Molecular, Cell, and Developmental Biology MS

Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Molecular, Cell, and Developmental Biology CPhil, PhD

Applicants interested in studying with faculty in the department are encouraged to apply to an appropriate home area in Graduate Programs in Bioscience.

Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Molecular, Cell, and Developmental Biology Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

30H. Collaborative Undergraduate Research Laboratory in Yeast, Genetics, and Molecular Biology. (5) Lecture, two hours; laboratory, six hours. Limited to 24 students in Collaborative Undergraduate Research Laboratory (CURL), sponsored by Howard Hughes Medical Institute Professors Program. Basic training in biological research, covering topics in molecular genetics, molecular biology, model organism biology, and data analysis. Letter grading.

50. Stem Cell Biology, Politics, and Ethics: Teasing Apart Issues. (5) Lecture, three and one half hours; discussion, 90 minutes. Developmental biology of various types of human stem cells. Important functional differences between embryonic, hematopoietic, and adult stem cells, as well as differences in their biomed- ical potentials. Discussion of history of debate surrounding embryos, as well as various social, ethical, political, and economic aspects of stem cell research. P/NP or letter grading.

60. Biomedical Ethics. (5) Lecture, three hours; discussion, one hour. Examination of importance of ethics in research and exploration of how and why bioethics is relevant to reproductive screening, policy formation, public regulation, and law. Provides foundation in traditional ethics, consideration of subcategories of bioethics, neoethics, and eugenics, and how to apply ethics to contemporary issues in research and technology. P/NP or letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. In- dividual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

90. Human Stem Cells and Medicine. (5) Lecture, three and one half hours; discussion 90 minutes. Stem cells have potential to revolutionize medicine is practiced today. Some stem cell therapies are already used successfully to treat thousands of people worldwide. Other stem cell therapies are considered experimental; therefore treatments must be monitored by Food and Drug Administration to ensure safety and efficacy. Some stem cell therapies are offered with minimal scientific justification, relying on hope and hype rather than scientific fact. Exploration of use of stem cells in medicine today to take close look at science behind some of today’s most famous and infamous stem cell medical applications. P/NP or letter grading.

99. Student Research Program. (1 to 2) Tutorial (su- pervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.
Upper-Division Courses

100. Introduction to Cell Biology. (5) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 3, 4, and 23L, or 7A, 7B, 7C, and 23L. Not open for credit to Developmental Biology majors or to students with credit for course 165A. Analysis of cell organization, structure, and function at molecular level. Cell membranes and organelles, membrane signaling, protein translocation, and cell movement, intracellular trafficking, cell energetics. Letter grading.

104AL. Research Immersion Laboratory in Developmental Biology. (5) Lecture, two hours; laboratory, eight hours. Prerequisites: Sciences 4, 4, and 23L, or 7A, 7B, 7C, 23L, and 107. Course 104AL is requisite to 104BL. Limited to Molecular, Cell, and Developmental Biology and Microbiology, Immunology, and Molecular Genetics majors. Discovery-based research using sea urchins as model system. Students determine expression of unstudied sea urchin genes using combination of molecular biology and computation techniques. May not be repeated for credit. Letter grading.

104BL. Advanced Research Analysis in Developmental Biology. (5) Laboratory, six hours. Enforced requisite: course 104AL. Limited to Molecular, Cell, and Developmental Biology majors. Investigation and evaluation to be primarily computational in nature whereby students use bioinformatics or mathematical modeling software to interpret, expand, or refine datasets. Use of graphics software to prepare figures and illustrations for presentations, posters, reports, and websites (database entries). Research accomplishments discussed in weekly seminar-style meetings in which student groups present slides and format and present results to class. Production of team poster and final report describing entire research project required. Letter grading.

130. Fundamentals of Digital Imaging and Image Processing. (5) Lecture, four hours; laboratory, two hours. Prerequisite: Sciences 3A, 3B, and 3C, or Mathematics 3A, 3B, and 3C, or Mathematics 31A, 31B, and 32A or 32A. Digital imaging has become integral tool to our everyday lives and to nearly every field of life sciences. Quantitative approach to learning about basic properties of digital images and surveying fundamental methods for processing and analyzing images. Letter grading.

138. Developmental Biology. (5) Lecture, three hours; discussion, one hour. Prerequisites: Life Sciences 3, 4, and 23L, and 107. Developmental understanding of fundamental molecular mechanisms and cellular activities guiding formation of complex organism from single fertilized egg. Development of model organisms to understand and conserved nature of developmental decisions across animal kingdom, distinct features that lead to diversification of animal shape and form during evolution. Origin and roles of stem and progenitor cells in development and maintenance of specific organ systems. Roles of cell shape change, cell death, proliferation, and migration in generating shape of embryo, organs, and tissues. Mechanisms by which cells become different from and communicate with one another to coordinate their activities in time and space in embryo. Special emphasis on experimental approaches used to address these fundamental questions to determine how organs and organs are formed and maintained throughout lifetime of organism. Letter grading.

140. Cancer Cell Biology. (5) Same as Biological Chemistry M140L. Lecture, three hours; discussion, one hour. Requisite: course 165A. Cancer causes and genetics. Effects of cell transformation on cell growth and metabolism. Altered cell cycle, metabolism, and differentiation pathways in cancer cells. Tumor microenvironment contributions to cancer malignancy, including angiogenesis, metastasis, and immune system evasion. Letter grading.

141. Molecular Basis of Plant Differentiation and Development. (5) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 3, 3A, 3B, and 3C, or 7A, 7B, 7C, 23L, and 107. In-depth study of basic processes of growth differentiation and development in plants and molecular mechanisms underlying these processes. Discussion of variety of plant systems, with focus on developing critical understanding of current experimental research for this exciting area. Concurrently scheduled with course C239. Letter grading.

143. Developmental Biology: Genetic Control of Organogenesis. (5) Lecture, three hours; discussion, one hour. Requisites: course 138, Life Sciences 3, 4, and 23L, or 7A, 7B, 7C, 23L, and 107. Not open for credit to students with credit for Chemistry 155B. Development through understanding of fundamentals of modern molecular biology both from perspective of known molecular mechanisms for regulating fundamental processes in cellular, tissue, and organismal development and from theoretical applied perspective for understanding of unstudied sea urchin genes using combination of bioinformatics or mathematical modeling software to interpret, expand, or refine datasets. Use of graphics software to prepare figures and illustrations for presentations, posters, reports, and websites (database entries). Research accomplishments discussed in weekly seminar-style meetings in which student groups present slides and format and present results to class. Production of team poster and final report describing entire research project required. Letter grading.

144. Molecular Biology of Cellular Processes. (5) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 3, 4, and 23L, or 7A, 7B, 7C, 23L, and 107. Not open for credit to students with credit for Chemistry 155B. Development through understanding of fundamentals of modern molecular biology both from perspective of known molecular mechanisms for regulating fundamental processes in cellular, tissue, and organismal development and from theoretical applied perspective for understanding of unstudied sea urchin genes using combination of bioinformatics or mathematical modeling software to interpret, expand, or refine datasets. Use of graphics software to prepare figures and illustrations for presentations, posters, reports, and websites (database entries). Research accomplishments discussed in weekly seminar-style meetings in which student groups present slides and format and present results to class. Production of team poster and final report describing entire research project required. Letter grading.

145. Appreciation and Critical Review of Biomedical Research. (4) Lecture, three hours; discussion, one hour. Corequisite: one course from 188B, 189C, 189B, 199C. Designed to offer students perspectives on how to appreciate independent research conducted in faculty mentor’s laboratory, and allow them to gain wider understanding of fundamental, cellular, and developmental biology. Through free-form Socratic learning method, class participation of classmates is encouraged, while students gain understanding of process and value of peer evaluation, and improved verbal and written presentation skills. Letter grading.


150. Plant Communication. (4) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 3, 4, and 23L, or 7A, 7B, 7C, 23L, and 107. Most people think of plants as static organisms, yet they live in a world of symbiosis and community. Plants change atmosphere, enrich soil, and communicate with insects, bacteria, and each other—Earth’s ultimate symbiote. Just as science has revealed over time misconceptions about how things work at deeper level, scientists and economists now recognize that beyond obvious need to grow above-ground biomass for fuel production, we must better understand how to maintain sustainable natural and artificial resources that sustain our existence. Experimental exploration of plant communication mechanisms and responses to microbial infection. Letter grading.


150BL. Limited to Molecular, Cell, and Developmental Biology majors. Introductory plant-microbe biology laboratory to give students hands-on experience doing experiments and making their own observations about plants and microorganisms. Letter grading.

CM156. Human Genetics and Genomics. (5) Same as Microbiology CM156E. Lecture, three hours; discussion, one hour. Requisites: Life Sciences 3, 4, and 23L, or 7A, 7B, and 7C. Application of genetic principles in human populations, with emphasis on human genetics, family studies, positional cloning, Mendelian and common diseases, cancer genetics, animal models, cytogenetics, pharmacogenetics, population genetics, genetic counseling. Letter grading. In literature, with focus on current questions in fields of medical and human genetics and methodologies appropriate to answer such questions currently scheduled with course CM256. Letter grading.

160. Principles of Light Microscopy. (4) Lecture, three hours; laboratory, two hours. Requisites: Life Sciences 7A, 7B, 7C, 23L. Over last two decades, there has been explosion of use of light microscopy which has provided us with invaluable tools for biological research. Study of light microscopy techniques currently used in research laboratories. Lecture examinations to discuss modern scientific applications, availability, and limitation of light microscopy. Letter grading.

165A. Biology of Cells. (5) Lecture, three hours; discussion, one hour. Requisites: Chemistry 140 or 30B, Life Sciences 3, or 7A, 7B, and 7C. Not open for credit to students with credit for course 165A. Development through understanding of fundamental cellular structure and function, with focus on each individual cellular organelle, as well as interaction of cells with extracellular environment and with other cells. Emphasis on stating context of experimental questions and answers to incorporate concept of scientific method and recent advances in cell biology research. Exposure in discussions to recent scientific articles directed to information examined in lectures. Letter grading.

165B. Molecular Biology of Cell Nucleus. (5) Lecture, three hours; discussion, two hours. Requisite: course 165A. Introduction of course 165A. Molecular biology of eukaryotic cell nucleus, with focus on structure, organization, replication, and repair of eukaryotic genome; eukaryotic gene expression, including transcription, translation, and regulation, as well as cancer and stem cells. Development of advanced specialized topics to allow integrated approach to molecular cell biology. Material presented in context of experimental questions and answers to incorporate concept of scientific method and recent advances in cell biology research. Exposure in discussions to current scientific articles that directly relate to information examined in lectures. Letter grading.

167. Genetic Engineering: History, Science, and Applications in Medicine, Agriculture, and Law. (6) Lecture four hours; discussion two hours. Requisites: Life Sciences 7A, 7B. Not open for credit to students with credit for course 70 or Honors Collegium 70A. Provides historical and scientific perspective on field of genetic engineering with emphasis on social, legal, and ethical issues that arise from emerging genetic technologies. Provides historical and social context for field of genetic engineering, and puts genetic engineering into historic and social perspective so that students can make objective decisions about how this technology should be used. Highly interactive, team-oriented, problem-based, and teaches students how to think critically about experimental science, societal issues raised by advances in genetic engineering, genetic counseling, and DNA reproduction. Includes interactive, media-oriented lectures with hands-on experiments and demonstrations, and seminar style discussions focusing on seminal articles in history of genetic engineering and contemporary issues. Letter grading.

168. Stem Cell Biology. (5) Lecture, three hours; discussion, one hour. Requisites: courses 138, 165A. State-of-art education of embryonic and adult stem cells and how these pluripotent/multipotent cells can be used to treat congenital defects, diseases, or injury in humans. Review of current knowledge of human

172. Genomics and Bioinformatics. (5) Lecture, three hours; discussion, one hour. Requisite: course 144 or 165B or Chemistry 153B or Microbiology 132. Genomics is study of complete repertoire of molecules in cells. The human and yeast genomes and genetic approaches to study function of individual genes, fundamental bioinformatics algorithms used to study relationship between nucleotide and protein sequence. Use of their evolution, use of microarray technologies to measure changes in gene expression, analysis of microarray data including clustering and promoter analysis, proteomics topics including protein expression and interactions, epigenetic study of DNA methylation and chromatin modification, and systems biology, or computational approaches to integrating varied genomic data to gain more complete understanding of cellular biology. Letter grading.


M175A. Neuroscience: From Molecules to Mind—Cellular and Systems Neuroscience. (5) Same as Neuroscience M101A, Physiological Science M180A, and Psychology M117B. Lecture, four hours; discussion, 90 minutes. Requisites: Chemistry 14C or 30A (14C may be taken concurrently), Life Sciences 7C, Physics 1B or 1BC or 5C or 6B. Students must receive grade of C or better to proceed to next course in sequence. Cellular and molecular neuroscience, molecular and cellular mechanisms of behavior. Letter grading.

M175B. Neuroscience: From Molecules to Mind—Molecular and Developmental Neuroscience. (5) Same as Neuroscience M101B, Physiological Science M180B, and Psychology M117C. Lecture, four hours; discussion, 90 minutes. Requisites: course M175A (with grade of C– or better), Life Sciences 7C. Molecular biology of channels and receptors: focus on voltage dependent channels and neurotransmitter receptor signaling. Neurotransmitters and neuromodulators. Synaptic mechanisms: synaptic transmission, axonal transport, cytoskeleton, and muscle. Classical experiments and modern molecular approaches in developmental neurobiology. P/NP or letter grading.


180A. Scientific Analysis and Communication I. (2) Seminar, two hours. Enforced corequisite: course 196A. Students read and discuss scientific articles and give presentations, introducing research topics using relevant primary literature, critical aspects of research process, including record keeping, ethics, laboratory safety and citizenry, mechanics of scientific writing, diverse approaches to research, and project respecification. Introduction of hands-on exposure to the publication of preprints and how to communicate your research project findings, improvement of oral and written communication skills, and full appreciation of process of doing good science and becoming skilled researchers. Letter grading.

180B. Scientific Analysis and Communication II. (2) Seminar, two hours. Enforced corequisites: courses 180A, 196A. Enforced corequisite: course 196B. Students give presentations similar to laboratory meeting or research symposium talk in which speakers discuss project goals, methodological approaches, results, and conclusions. Writing research papers as well as prepare and present scientific posters. Production of deliverables that demonstrate research achievements and creation of sense of pride for work accomplished as skilled researchers. Letter grading.

187AL. Research Immersion Laboratory in Genomic Biology. (5) Lecture, three hours; laboratory, six hours. Requisites: Life Sciences 4 or 107, 23L. Course 187AL is requisite to 187BL. Limited to Molecular, Cell, and Developmental Biology majors. Introduction to cutting-edge genomic technologies and bioinformatics methods and resources for genome annotation. Students propose original research projects related to gene expression, evolution, and functions using bioinformatics tools. Students are provided fragments of genome from relatively poorly studied organism that has been sequenced at UCLA. May not be repeated for credit. Letter grading.

188. Special Courses in Molecular, Cell, and Developmental Biology. (2) Seminar, two hours. Departmentally sponsored experimental or temporary courses, such as those taught by visiting faculty members. May be repeated for credit with topic change. Letter grading.

188A. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E or 101F. Enforced corequisite: Senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.


188C. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced requisite: course 188B. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE 885 course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to students in College Honors Program. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be repeated for credit. Enforced requisite: senior research contract required. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for credit. Enforced requisite: senior research contract required. Honors content noted on transcript. Letter grading.

191. Variable Topics Research Seminars: Molecular, Cell, and Developmental Biology. (2) Seminar, two hours. Limited to majors. Intended for students with strong commitment to pursue graduate studies in molecular, biochemical, physiological, and biomedical fields. Weekly variable topics course with regular discussion and presentation of paper selected from current literature. May be repeated once for credit. P/NP or letter grading.

192A. Undergraduate Practicum in Molecular, Cell, and Developmental Biology. (5) Seminar, two hours. Limited to junior/senior Molecular, Cell, and Developmental Biology majors. Training and supervised practicum for advanced undergraduate students. Students assist in preparation of materials and development of innovative programs under guidance of faculty member in small course settings. Consult Undergraduate Office for further information. May not be applied toward course requirements for Molecular, Cell, and Developmental Biology major. May be repeated once for credit. P/NP or letter grading.

192B. Undergraduate Practicum: CityLab. (2) Seminar, two hours. Limited to juniors/seniors in any life sciences major. CityLab training and supervised practicum for advanced undergraduate students. Students assist in preparation of materials and development of innovative programs under guidance of faculty member in small course settings. May not be applied toward course requirements for Molecular, Cell, and Developmental Biology major. May be repeated once for credit. P/NP or letter grading.

193. Journal Club Seminars: Molecular, Cell, and Developmental Biology: Applied Biology. (3) Seminar, two hours. Enforced corequisites: course 199A or 199B or 199C or 199A or 199B or 199C. Limited to juniors/seniors. Development of in-depth understanding of and ability to discuss current literature in one’s own research. May be repeated for credit. P/NP grading.

194A. Research Group Seminars: Current Topics in Biomedical Sciences. (2) Seminar, two hours. Limited to juniors/seniors in research traineeships or those who have strong commitment to pursue graduate studies in molecular, biochemical, physiological, or biomedical fields. Weekly presentation and discussion of paper selected from current literature. May be repeated for credit. P/NP grading.

194B. Research Group Seminars: Current Topics in Biomedical Sciences. (2) Seminar, two hours. Limited to juniors/seniors in research traineeships or those who have strong commitment to pursue graduate studies in molecular, biochemical, physiological, or biomedical fields. Weekly presentation and discussion of paper selected from current literature. May be repeated for credit. P/NP grading.
required to 196B. Designed for undergraduate students who are interested in pursuing inquiry-based and hypothesis-driven research experience in laboratory of department of preclinical pathology. Guided research course to be taken in conjunction with course 180A, followed by continuation research course 196B. Technical aspects vary depending on specific laboratory; however, all students learn how to apply scientific method: propose hypothesis, design experiments to address hypothesis, perform experiments, and analyze results. How to record information from experimental data. Computer filtering; three-dimensional reconstruction. Harmonic analysis and Fourier transforms; principles of electron, neutron, and X-ray diffraction; optical and computer filtering; three-dimensional reconstruction. "S/U or letter grading.

Graduate Courses


M230B. Structural Molecular Biology. (4) (Same as Chemistry M230B.) Lecture, three hours; discussion, one hour. Requisites: Mathematics 3C, Physics 6C. Selected topics from principles of biological structure; structures of globular proteins and RNA; structures of fibrous proteins, nucleic acids, and polysaccharides; principles of electron, neutron, and X-ray diffraction; optical and computer filtering; three-dimensional reconstruction. "S/U or letter grading.

M230D. Structural Molecular Biology, Laboratory. (2) (Same as Chemistry M230D.) Laboratory, 10 hours. Corequisite: course M230B. Methods in structural molecular biology, including experiments utilizing single crystal X-ray diffraction, low angle X-ray diffraction, electron diffraction, optical diffraction, optical filtering, three-dimensional reconstruction from electron micrographs, and model building. "S/U or letter grading.

C234. Genetic Control of Development. (4) (Same as Biological Chemistry M234.) Lecture, four hours. Topics consist of developmental biology, focusing on experimental approaches in molecular biology, including problems in oogenesis and early embryogenesis, pattern formation, axis determination, and development of the nervous system. "S/U or letter grading.
nervous system development, cellular morphogen-
esis, and cell-cell and cell-matrix interactions. S/U or
letter grading.

C239. Molecular Basis of Plant Differentiation and De-
velopment. (4) Lecture, three hours; discussion, one hour. Requi-
sites: Life Sciences 1, 3, 4, and 23L or 7A, 7B, 7C, 23L, and 107. In-depth study of basic pro-
cesses of growth differentiation and development in plants and molecular mechanisms underlying these pro-
cesses. Discussion of variety of plant systems, with focus on develop-
ing critical understanding of cur-
cient experimental basis of research in this field. Con-
currently scheduled with course C141. Preparation and pre-
presentation of term paper, in addition to other coursework,
required of graduate students. Letter grading.

242. Topics in Neurobiology. (4) Lecture, three hours; dis-

cussion, two hours. Designed for graduate students.

250. Plant Communication. (4) Lecture, three hours; dis-

cussion, one hour. Requisites: Life Sciences 3, 4, and 23L, or 7A, 7B, 7C, 23L, and 107. Most people
think of plants as static organisms, yet they live in
world of symbiosis and community. Plants change at-
mosphere, enrich soil, and communicate with insects,
and other—Earth’s ultimate symbiote. Just as science has disclosed over time misconcep-
tions about static level, scientists and economists now recognize that beyond obvious need to grow above ground biomass for fuel produc-
tion, we must better understand how to make that bio-

mass in sustainable manner. Introductory course in
chemical ecology and how natural compounds affect
gene expression. Emphasis on role of natural com-

pounds in plant/microbe, plant/plant, and plant/herbi-
vore interactions. System of principles of plant de-
fense mechanisms and responses to microbial infec-
tions. Concurrently scheduled with course C150. S/U or
letter grading.

254. Seminar: Plant Morphogenesis. (2) Seminar, two hours; dis-

cussion, one hour. Letter grading.

255. RNA Editing. (4) Lecture, two hours; discussion, one hour. Prepara-
tion: knowledge of molecular biology and molecular genetics. Discussion of diverse set of
novel RNA modification phenomena known as RNA editing. Topics include U insertion/deletion type of ed-
it ing in trypanosome mitochondria, C to U substitution editing in apo B mRNA and plant mitochondria, C in-
sertion editing in Physarum mitochondria, etc. Discus-
sion of mechanism, function, and evolution of these phenomena. S/U grading.

CM256. Human Genetics and Genomics. (5) [Same as Biochemistry: CM286.] Lecture, three hours; dis-

cussion, one hour. Requisites: Life Sciences 3, 4, and 23L, or 7A, 7B, and 7C. Application of genetic principles in
human populations, with emphasis on genomics, family studies, positional cloning, Mendelian and
common diseases, cancer genetics, animal models, cyto-
genetics, pharmacogenetics, population genetics, and
genetic counseling. Lectures and readings in liter-
ature, with focus on current questions in fields of med-
ical and human genetics and methodology appro-
riate to answer such questions. Concurrently sched-
ulated with course CM156. Independent research project
designed for graduate students. Letter grading.

266A-266B-266C. Seminars: Development, Stem

Cells, and Disease Mechanisms. (2–2–2) Seminar, two hours. Limited to graduate students. Advanced courses based on research papers on fundamental cellular mechanisms governing development and disease.

M272. Stem Cell Biology and Regenerative Medi-
cine. (4) [Same as Pathology M272.] Lecture, two hours; discussion, two hours. Designed for graduate
students. Presentation of current knowledge of em-

bryonic and adult stem cells and factors that regulate
their growth and development. Major emphasis on
how advances in cell and molecular biology and tissue
engineering can be applied to use of stem cells in re-
generative medicine. Bioethical and legal issues re-

lated to stem cell research, S/U or letter grading.

276. Seminar: Molecular Genetics. (2) Seminar, two hours; S/U or letter grading.

277. Seminar: Genetics. (2) Seminar, two hours; S/U or
letter grading.

278. Seminar: Molecular Genetics of Development. (2) Seminar, two hours. Designed for graduate stu-
dents. Topics vary from year to year, to focus on es-

tablishment of position and pattern during embryo-
genesis by interaction of signal transduction systems
and transcription factors. S/U or letter grading.


283. Seminar: Topics in Cell Biology. (2) Seminar, two hours. Discussion of various topics on biology of
eukaryotic cells. Topics vary from year to year and in-
clude bioenergetics, motility, organelle DNA, mem-
brane structure and function, oncogenic transforma-
tion, nuclear organization and function. S/U or letter grading.

284. Seminar: Structural Macromolecules. (2) Seminar, one hour; discussion, three hours. Prepara-
tion and discussion of current topics in extracellular active structural macromolecules—their synthesis, struc-
ture, and roles in cell and developmental biology. Letter grading.

285. Seminar: Plant Development. (2) Seminar, one hour; discussion, two hours. Preparation: one plant physiology course and at least one advanced under-
graduate or graduate plant development or biochem-
istry course. Seminar on specific topics in plant devel-

opment. Content varies each term. S/U grading.

299. Current Topics in Plant Molecular Biology. (2) Discussion, one hour. Recent research developments in field of plant molecular biology. Opportunities for

graduate students to discuss individual research work.

S/U grading.


295. Seminar: Molecular, Cell, and Developmental Biology. (2) Seminar, two hours. In-depth surveys of recent developments in molecular, cell, and develop-

mental biology research. Reading and presentation of
primary research articles to learn to critically evaluate
research papers and to organize and present seminars on specific research topics. S/U or letter grading.

296. Advanced Topics in Molecular, Cellular, and De-
velopmental Biology. (2) Seminar, three hours. Ad-

dvanced study and analysis of current topics in cell,
molecular, and developmental biology. Discussion of
current research and literature in research specialty of
faculty member teaching course. S/U grading.

297. Advances in Molecular Analysis of Plant Devel-

opment and Plant/Microbe Interactions. (2) Discus-
sion, two hours. Recent advances in plant molecular biology, with emphasis on control of gene expression
both during plant development and in plant/microbe

375. Teaching Apprentice Practicum. (1 to 4) Semi-
inar, to be arranged. Preparation: apprentice per-
sonnel employment as teaching assistant, associate, or
fellow. Teaching apprenticeship under active guid-
ance and supervision of regular faculty member re-
sponsible for curriculum and instruction at UCLA. May
be repeated for credit. S/U grading.

405. Preparation for Teaching Molecular, Cell, and De-
velopmental Biology in Higher Education. (2) Seminar, two hours. Designed for graduate students.

Study of problems and methodologies in teaching mo-

elocular, cell, and developmental biology, including
workshops, seminars, apprentice teaching, and pre-
observation, S/U grading.


597. Preparation for MA Comprehensive Examina-
tion or PhD Qualifying Examinations. (2 to 12) Tuto-
rial, to be arranged. May not be applied toward MA or
PhD course requirements. S/U grading.

598. MA Thesis Research and Writing. (2 to 12) Tu-
torial, to be arranged. S/U grading.

599. PhD Dissertation Research and Writing. (2 to
12) Tutorial, to be arranged. S/U grading.

Molecular, Cellular, and Integrative Physiology

Interdepartmental Program

College of Letters and Science and

David Geffen School of Medicine

328 HERSHEY HALL

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Molecular, Cellular, and Integrative Physiology
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Overview

Physiology is the study of the functional pro-
cesses that collectively constitute life. The studies usually employ quantitative analyses of normal life processes, of pathological defects in normal life processes, of model systems to clarify and test basic physiological principles, and of functional specializations of organisms that have evolved under the influence of differ-
ing selective forces. Thus, physiology contrib-
utes importantly to advances in knowledge both in the basic biological sciences and in bio-
medicinal sciences; and provides an essential
foundation for the practice of medicine.

The primary objective of the interdepartmental Molecular, Cellular, and Integrative Physiology program is to train a new generation of physi-
ologists who apply modern knowledge in
molecular and cellular biology and systems
physiology to important questions in organism-

Molecular, Cellular, and Integrative Physiology / 665
physiological questions across several levels of organization and to understand how research strategies incorporating each of the levels of analysis can be formulated. This approach to physiology education is responsive to the need for physiologists who can intellectually and technically span disciplines related to physiol-

ogy that are typically separated.

Coursework consists of formal instruction in the most current information in molecular biology, cell biology, and the molecular and cellular foundations of physiology. In addition, students identify an area of emphasis in biophysics, cellular and molecular biology, or integrative/comparative physiology in which additional studies are pursued. The heart of the program, however, is the research that leads to the dissertation, which is performed under the guidance of a faculty mentor. The program faculty includes more than 115 professors in the Geffen School of Medicine and College of Letters and Science. Collectively they have been recently ranked by the National Research Council in the top five in the U.S. for their quality as an academic faculty.

Graduate Major

Molecular, Cellular, and Integrative Physiology PhD

Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Molecular, Cellular, and Integrative Physiology

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Graduate Courses

214. Research Grant Writing in Biomedical Sciences. (4) Lecture, three hours. Designed for Molecular, Cellular, and Integrative Physiology program students. Training in designing, writing, and evaluating research project and fellowship grants. How grant applications are structured and what features contribute to grant application success. How individual research project grants (RO1) and exploratory/development research grants (R21) to National Institutes of Health (NIH) are structured and differ. How applications for predoctoral fellowships from NIH (F31) and American Heart Asso-

ciation (AHA) are organized. Development and writing of students’ own RO1, R21, F31, or AHA grant appli-
cation. Letter grading.

248. Seminar: Molecular Basis of Physiological Function. (2) Seminar, two hours. Application of mo-

lecular approaches in investigation of physiological processes of biological systems. Critical thinking and experimental design strategies learned through primary literature review and in-class presentation-discussion. Letter grading.

249. Seminar: Pathogenic Mechanisms in Muscle Disease. (2) Seminar, two hours. Recent advances have been made in genetic identification of molecular basis of muscle disease, and some mechanisms in-
volved have been elucidated. Focus on muscle dis-
eases in which substantial mechanistic information has been obtained, including particular cellular locations and diseases associated with those locations. Topics include Duchenne muscular dystrophy, congenital muscular dystrophy, limb girdle dystrophy, Ullrich myopathy, and other forms of genetically inherited muscle disease. S/U grading.

250. Current Topics in Molecular, Cellular, and Integrative Physiology. (2) Seminar, two hours. Designed for molecular, cellular, and integrative physiology students. Reading, analysis, critique, and discussion of current research literature in field of molecular, cellular and integrative physiology. Student presentation of assigned paper. Variable topics. May be repeated for credit. S/U grading.

251. Integrative Genomics for Studying Complex Diseases. (2) Seminar, two hours. Requisite: course 252A. Lectures and supervised student presentations to offer graduate students opportunity to acquire deep understanding of advanced integrative genomic approaches and how these approaches can be applied to help understand molecular basis of diverse com-
plex diseases. Topics include transcriptomics, genetics, functional genomics, network biology, and high-level integration. Letter grading.

252. Molecular Mechanisms of Human Diseases I. (6) Lecture, four hours; discussion, two hours. Prepa-
rating: prior satisfactory molecular and cell biology coursework. Fundamental concepts and methodolo-
gies in modern biology and medicine, with emphasis on systems-based research and mechanistic under-
standing to human diseases and therapies as they apply to neural, immune, cardiovascular, and meta-

bolic systems. Reading, review, and discussion of pri-
mary research literature addressing fundamental con-
cepts and methodologies in related topic areas of human biology and diseases. Emphasis on development of scientific skills in critical analysis, knowledge acquisition and self-learning, as well as effective artic-
ulation in scientific debate and exchange. Letter grading.

262. Molecular Mechanisms of Human Diseases II. (6) Lecture, four hours; discussion, two hours. Prepa-
rating: prior satisfactory molecular biology course-
work. Requisite: course 252. Fundamental concepts and methodologies in modern biology and medicine, with emphasis on systems-based research and mecha-

nistic understanding to human diseases and therape-
ties as they apply to neural, cardiovascular, and meta-

bolic systems. Includes reading, review, and discus-
sion of primary research literature addressing fundamen-
tal concepts and methodologies in related topic areas of human biology and diseases. Emphasis on development of scientific skills in critical analysis, knowledge acquisition and self-learning, and effective articulation in scientific debate and exchange. Letter grading.

290A-290B-290C. Tutorials. (4-4-4) Tutorial, two hours. Discussion, analysis, and critique of original research literature. Letter grading. 290A, Cellular and Molecular Physiology; 290B, Biophysics; 290C, Integrative and Comparative Physiology.

296. Research Seminar. (2) Seminar, to be arranged. Review of literature, discussion of original research, and analysis of current topics in molecular, cellular, and integrative physiology. May not be applied toward PhD course requirements. May be repeated for credit. S/U grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice per-

sonnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guid-
ance and supervision of regular faculty member re-

sponsible for curriculum and instruction at UCLA. May not be applied toward PhD course requirements. May be repeated for credit. S/U grading.

596. Directed Individual Study or Research. (2 to 10) Tutorial, to be arranged. May be repeated for credit. S/U or letter grading.

997. Preparation for PhD Qualifying Examinations. (2 to 10) Tutorial, to be arranged. May not be applied toward PhD course requirements. May be repeated for credit. S/U grading.

599. Research for PhD Dissertation. (2 to 10) Tuto-

rial, to be arranged. May not be applied toward PhD course requirements. May be repeated for credit. S/U grading.

Molecular Toxicology

Interdepartmental Program

Jonathan and Karin Fielding School of Public Health

56-070 Center for Health Sciences

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Molecular Toxicology

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Xia Yang, PhD (Integrative Biology and Physiology, Molecular and Medical Pharmacology)

Overview

Faculty from 19 departments from six schools at UCLA, including chemistry and biochemistry, environmental health sciences, epidemiology, medicine, molecular and medical pharmacology, and pathology and laboratory medicine, have joined forces to create an interdisciplinary PhD program in Molecular Toxicology that is administered through the Fielding School of Public Health.

Specialties within the program include, but are not limited to, neurotoxicology, developmental toxicology, genetic toxicology, and carcinogen-
esis. There is a particular emphasis on mechani-

ms of toxicity, since it is now widely accepted that understanding mechanisms will provide the means for accurately determining risk.

New chemicals have been the basis for most of the technological developments during the past century, and there is no question that soci-
eity has reaped enormous benefits from the creation and growth of the chemical industry. However, major health and environmental problems have also been the legacy of the synthesis of new chemical species. The discipline of toxicology, which seeks to characterize and elucidate the mechanisms of the problems related to exposure of chemical agents, has also developed from a purely descriptive to a mechanistic science whose objective is to understand the basis of toxic action, predict the toxicity of new chemical entities, and protect organisms from them. Toxicology has used the basic disciplines of chemistry, biochemistry, and cell biology to advance understanding of toxicological phenomena, and the growth of the sophistication of toxicology has paralleled the increase in knowledge derived from the basic chemical and biological sciences.

Graduate Major

Molecular Toxicology PhD

Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Molecular Toxicology

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial, guided study under direct faculty supervision. May not be applied toward degree course requirements. May be repeated for credit. S/U or letter grading.

Upper-Division Course

197. Individual Studies in Molecular Toxicology. (2 to 4) Tutorial, four hours. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

211A-211B-211C. Molecular Toxicology Seminars. (1-1-1) Seminar, one hour twice per semester. Participation is required with topics relevant to molecular toxicology. In Progress (students, postdoctoral fellows, and faculty) and deals with members of UCLA molecular toxicology community (students, postdoctoral fellows, and faculty) and deals with topics relevant to molecular toxicology. In Progress (211A, 211B and S/U(211C) grading.

242. Advanced Molecular Toxicology. (4) Formerly numbered M242.) Lecture, two hours; discussion, two hours. Requisite: Environmental Health Sciences C240. Preparation: undergraduate biology and chemistry courses. Examination of recent literature on mechanisms of toxicity. Didactic lectures and student presentation of papers selected by instructor on various aspects of toxic mechanisms, including free radical generation, oxidative stress and adaptive pathways; mechanisms of cell death, inflammation and fibrosis, autophagy and diseases, metal toxicity/ homeostasis, carcinogenesis, DNA damage and repair, cancer and gene environment interactions, toxicity testing and radiation carcinogenesis, toxicology of major pollutants including air pollution, persistent organic pollutants and dioxins, toxicology of major organ including liver, kidney, immune, reproductive and nervous system, and nanotoxicology. Discussion of various papers. Letter grading.

M247. Advanced Concepts in Gene-Environment Interactions. (4) Same as Environmental Health Sciences M241.) Lecture, three hours; discussion, one hour. Comprehensive and practical examination of emerging science of gene-environment interaction. Discussion of primary components of field, including role of metabolic pathways in modifying environmental responses and importance of environmental influences in human disease. Exploration of selected hot topics in field, such as importance of epigenetics and of microbiome. S/U or letter grading.

296B-296F. Research Topics in Molecular Toxicology. (2-2) Research group meeting, two hours. Advanced study and analysis of current topics in molecular toxicology. Discussion of current research and literature in research specialty of faculty member teaching course. S/U grading: 296B. Molecular Carcinogenesis. 296F. Genetic Toxicology.

596. Directed Individual Study or Research. (2 to 12) Tutorial, to be arranged. Individual guided studies under direct faculty supervision. May not be applied toward degree course requirements. May be repeated for credit. S/U or letter grading.

597. Preparation for PhD Qualifying Examinations. (2 to 12) Tutorial, four hours. May not be applied toward degree course requirements. May be repeated for credit. S/U grading.

599. PhD Dissertation Research. (8 to 12) Tutorial, to be arranged. May not be applied toward degree course requirements. May be repeated for credit. S/U grading.

Music

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Music

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Walter Ponce, DMA
Paul V. Reale, PhD
Jon Robertson, DMA
Robert Walser, PhD
Robert S. Winter, PhD (Presidential Professor Emeritus of Music and Interactive Arts)

Assistant Professors

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Jocelyn H. Ho, DMA
David J. Kaplan, DMA (Shapiro Family Professor of Piano Performance)
Kay K. Rhie, DMA

Senior Lecturer SOE

John L. Hall, MM, Emeritus

Lecturer SOE

Maureen D. Hooper, EdD, Emerita

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Jonathan R. Beard, MM
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Elin Bouriakov, PGDip
David A. Brennan, DMA
Wendy L. Caldwell, BM
Jonathan D. Davis, DMA
Nick J. De Pinna, MM
Dante L. De Silva, PhD
Theresa A. Dimond, DMA
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James T. Miller, MM
Lou Anne Neil, MA
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Joshua H. Ranz, MM

Music / 667
Undergraduate Majors

Music BA

Capstone Major

The Music major is a designated capstone major. Through preparation for and execution of their senior capstone projects or recitals, students demonstrate mastery of program learning outcomes as well as a level of proficiency appropriate for their role in the recitals and their understanding of performance practices appropriate to the repertory being performed, as acquired in previous coursework and through research. Students also display their ability to assemble an effective program in terms of pacing and variety and demonstrate requisite stage presence along with an ability to communicate with their audience in performance.

Learning Outcomes

The Music major has the following learning outcomes:

- Proficiency appropriate for role in the recital
- Understanding of performance practices, as acquired through coursework and research, appropriate to the repertory being performed
- Ability to assemble an effective program in terms of pacing and variety
- Requisite stage presence and ability to communicate with audience in performance

Entry to the Major

Admission

Applications for the Music BA are not being accepted at this time.

Requirements

Preparation for the Major

Required: Music M6A, M6B, M6C, with grades of C– or better, 20A, 20B, 20C, with grades of C or better, 12 units from courses 60A through 61A, and two years (12 units) of performance organizations utilizing students’ major instruments (courses C185A through 185H and C186A through C186C), as assigned by the chair or designated faculty member.

The Major

Required: Music 120A, 120B, 120C, 140A, 140B, 140C, with grades of C or better, and six theory courses selected in consultation with a faculty adviser.

Policies

Preparation for the Major

All entering first years are required to take the Music Theory Assessment Examination either during New Student Sessions or during zero week of fall quarter. The examination score is used to determine eligibility and placement in first-year music core courses (Music M6A, M6B, M6C and 20A, 20B, 20C). Examination results may require enrollment in Music 3 as a requisite to both courses M6A and 20A. Entering transfer students with fewer than 15 units of prior music theory must take the Music Theory Assessment Examination.

Music Composition BA

Capstone Major

The Music Composition major is a designated capstone major. Through preparation for and execution of their senior capstone projects or recitals, students demonstrate mastery of program learning outcomes; as well as a level of proficiency appropriate for their role in the recitals and their understanding of performance practices appropriate to the repertory being performed, as acquired in previous coursework and through research. Students also display their ability to assemble an effective program in terms of pacing and variety, and demonstrate requisite stage presence along with an ability to communicate with their audience in performance.

Learning Outcomes

The Music Composition major has the following learning outcomes:

- Demonstrated artistic proficiency on a primary instrument or in voice
- Demonstrated excellent aural musicianship skills and a working knowledge of music theory and music history
- Composition of vocal, instrumental, and/or electronic music in varied genres and forms
- Demonstrated knowledge and application of vocal, instrumental, and electronic performance techniques and acoustical properties to scoring and orchestration, including proficiency with notation and sequencing software
- Demonstrated knowledge of counterpoint and polyphonic styles and textures in Renaissance, Baroque, Classical-Romantic, and/or contemporary practice
- Demonstrated fundamentals of conducting an ensemble, including basic patterns and gestures, principles, scores analysis skills, and rehearsal techniques
- Composition of at least one substantial piece of music and presentation of it in a concert setting, such as a senior recital

Entry to the Major

Admission

For new and change-of-major applicants, students must submit a portfolio of compositions prior to the required audition and interview with the composition faculty.

Requirements

Preparation for the Major

Required: (1) Musicianship—Music M6A, M6B, M6C, with grades of C– or better; (2) Theory—Music 20A, 20B, 20C, with grades of C or better; (3) Instrumental studio—12 units from Music 60A through 60U in one instrument; (4) Composition studio—6 units of Music 66; (5) Large conducted ensembles—12 units from Music C185A through 185H using the student’s major instrument, as assigned by the chair or designated faculty member.
The Major

Required: (1) **Theory**—Music 120A, 120B, 120C, with grades of C or better; (2) **History**—Musicology 125A, 125B, 125C, with grades of C or better; (3) **Advanced composition studio**—10 units of Music 166; (4) **Advanced composition concepts and techniques**—Music 104A or 104B, 106A, 106B, 116, 124A or 124B or 124C, C176; (5) **Electives**—at least 4 units selected from all upper-division ethnomusicology, global jazz studies, music, music industry, or musicology courses; (6) **Capstone composition recital**—Music 169. In senior year, each student must present a senior recital as part of the capstone course to be preceded by a scoring course (Music 124A or 124B or 124C); the 30-minute recital includes a printed program with notes. All recitals are videotaped and archived. Performances are evaluated by a jury.

Policies

Preparation for the Major

All entering first years are required to take the Music Theory Assessment Examination either during New Student Sessions or during zero week of fall quarter. The examination score is used to determine eligibility and placement in first-year music core courses (Music M6A, M6B, M6C and 20A, 20B, 20C). Examination results may require enrollment in Music 3 as a requisite to both courses M6A and 20A. Entering transfer students must take the Music Theory Assessment Examination to determine placement in the appropriate music theory sequence.

Music Education BA

Capstone Major

The Music Education major is a designated capstone major. Through preparation for and execution of their senior capstone projects or recitals, students demonstrate mastery of program learning outcomes; as well as a level of proficiency appropriate for their role in the recitals and their understanding of performance practices appropriate to the repertory being performed, as acquired in previous coursework and through research. Students also display their ability to assemble an effective program in terms of pacing and variety, and demonstrate requisite stage presence along with an ability to communicate with their audience in performance.

Learning Outcomes

The Music Education major has the following learning outcomes:

- Demonstrated artistic proficiency on a primary instrument or in voice
- Demonstrated excellent aural musicianship skills and a working knowledge of music theory and music history
- Demonstrated knowledge of a varied repertoire of music that includes Western, non-Western, and/or large conducted ensembles
- Development of pedagogical skills, assessment strategies, and musical leadership abilities in classroom, instrumental, and choral settings
- Demonstrated basic skills in secondary performance areas and music technology
- Identification and description of major concepts and theories of educational psychology
- Development of the flexibility necessary to teach music in traditional and non-traditional settings

Entry to the Major

Admission

Applicants are required to audition in their primary performance medium and interview with the music education faculty.

Requirements

Preparation for the Major

Required: (1) **Music M6A, M6B, M6C**, with grades of C– or better; (2) **Theory**—one of the following series approved by the division chair: Music 20A, 20B, and 20C, or 21A, 21B, and 21C with grades of C or better; (3) **Instrumental or vocal studio**—12 units from Music 60A through 60U for instrumentalists or 15 units of Music 61A and 61C for vocalists; (4) **Large conducted ensembles**—18 units from Music C185A through 185H, as assigned by the chair or music education faculty member.

The Major

Required: (1) **Music M6A, M6B, M6C**, with grades of C– or better; (2) **Theory**—Music 111A, 111B, 111C, with grades of C or better; (3) **History**—Musicology 125A, 125B, 125C, with grades of C or better; (4) **Music education**—Music 110A, 110B, 110C, 110D, 114A, 114B, 114C, 114D, 115A, 115B, 115C, 116, 117; (5) **Advanced instrumental or voice studio**—4 units from Music 160A through 160U for instrumentalists or 5 units of Music 161A and 161C for vocalists; (6) **Public recital**—2 units from Music 163A through 163V (vocalists must also enroll in Music 161C as corequisite to 163V) taken in the primary performance area; students must consult and receive approval from the music education faculty member before scheduling recital, which may be scheduled as early as fall quarter of the junior year; and (7) **Capstone project**—Music 110D. All capstone projects in music education take the form of an electronic portfolio demonstrating mastery of program learning outcomes. The student’s portfolio must be submitted before Music 110D is completed.

Policies

Preparation for the Major

All entering first years are required to take the Music Theory Assessment Examination either during New Student Sessions or during zero week of fall quarter. The examination score is used to determine eligibility and placement in first-year music core courses (Music M6A, M6B, M6C, and 20A, 20B, and 20C or 21A, 21B, and 21C). Examination results may require enrollment in Music 3 as a requisite to both courses M6A and 20A/21A. Entering transfer students must take the Music Theory Assessment Examination to determine placement in the appropriate music theory sequence.

Music Performance BM

Capstone Major

The Music Performance major is a designated capstone major. Through preparation for and execution of their senior capstone projects or recitals, students demonstrate mastery of program learning outcomes; as well as a level of proficiency appropriate for their role in the recitals and their understanding of performance practices appropriate to the repertory being performed, as acquired in previous coursework and through research. Students also display their ability to assemble an effective program in terms of pacing and variety, and demonstrate requisite stage presence along with an ability to communicate with their audience in performance.

Learning Outcomes

The Music Performance major has the following learning outcomes:

- Demonstrated artistic proficiency on a primary instrument or in voice
- Demonstrated excellent aural musicianship skills and a working knowledge of music theory and music history
- Demonstrated artistic proficiency and flexibility as performer and collaborator in varied settings, including chamber ensembles and large conducted ensembles
- Demonstrated knowledge of history and performance repertoire for a primary instrument or voice and representative works for chamber and large conducted ensembles from the majors periods of Western classical music, including contemporary compositions
- Demonstrated ability to apply knowledge of compositional form, historical context, performance practices, extended techniques, non-traditional notation, and current issues to performance of Western classical music
- Demonstrated knowledge about genres other than Western classic music or the scholarly study of music and/or the business practices associated with the music industry
- Conceptual, preparation, and performance of a public solo recital of Western classical music, including a printed program and program notes

Entry to the Major

Admission

Applicants are required to audition in their principal performance medium and interview with the music performance faculty.

Requirements

Preparation for the Major

Required: (1) **Music M6A, M6B, M6C**, with grades of C– or better; (2) **Theory**—one of the following series approved by the area head/division chair: Music 20A, 20B, and 20C, or 21A, 21B, and 21C, with grades of C or better.
Based on instrument or voice, one concentration selected below:

Brass, percussion, and woodwinds: (1) **Instrumental studio**—12 units from Music 60A through 60J; (2) **Chamber ensembles**—4 units from Music C175A through C175G; (3) **Large conducted ensembles**—12 units from Music C185D through 185H.

**Keyboard:** (1) **Instrumental studio**—12 units from Music 60S, 60T, or 60U; (2) **Chamber ensembles**, **keyboard literature**, and accompanying—8 units from Music C171, C175A through C175G, or C186A; (3) **Large conducted ensembles**—6 units from Music C185A through 185H.

**Strings:** (1) **Instrumental studio**—12 units from Music 60K through 60R; (2) **Chamber ensembles**—6 units from Music C175A through C175G; (3) **Large conducted ensembles**—6 units from Music C185D through 185H.

**Voice:** (1) **Voice studio and voice coaching**—18 units of Music 61A and 61B; (2) **Singing dictionary**—Music 74A, 74B, 74C; (3) **Large conducted ensembles**—12 units from Music C185A through 185H; (4) **Electives**—at least 8 units of upper-division electives from ethnomusicology, global jazz studies, music, music industry, or musicology; (5) **Capstone instrumental recital**—one course from Music 167K through 167R. In senior year, each student must present a senior recital as part of the capstone course; the 45–55-minute recital will include a printed program with notes.

**Policies**

**Preparation for the Major**

All entering first years are required to take the Music Theory Assessment Examination either during New Student Sessions or during zero weeks of fall quarter. The examination score is used to determine eligibility and placement in the appropriate music theory sequence. Choice of theory course series to be approved by area head/division chair.

**Strings**

For classical guitar, harp, and string bass, students may petition to substitute alternative courses if there are no suitable chamber ensembles offered during the academic year. For classical guitar, students may petition to substitute Music C185A, C185B, or C185C; (4) **Electives**—at least 4 units of upper-division electives from ethnomusicology, global jazz studies, music, music industry, or musicology; (5) **Capstone voice recital**—Music 161B and 168. In senior year, each student must present a senior recital as part of the capstone course; the 45–55-minute recital will include a printed program with notes.

**Graduate Majors**

**Master of Music**

**Requirements**

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

**Music DMA**

**Requirements**

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

**Music MA, CPhil, PhD**

**Requirements**

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

**Music**

**Lower-Division Courses**

3. **Preparatory Music Theory.** (4) Lecture, four hours; laboratory, one hour. Course in music fundamentals, including musicianship, theory, and terminology. Letter grading.

4. **Musicology M3.** (Same as Ethnomusicology M6A-M6B-M6C and Musicology M6A-M6B-M6C) Laboratory, four hours. Preparation: placement examination. Course M6A is enforced requisite to M6B, which is enforced requisite to M6C. Students must receive grade of C– or better to proceed to next course in sequence. Introduction to musicianship through in-depth exploration of basic common musical elements and training in aural recognition, sight singing, dictation, and keyboard skills. Focus on topics such as tonal and modal harmony, rhythm, improvisation, composition, notation, and ear training to prepare students for later theory courses, participation in music ensembles, advanced study in music, and professional careers. Letter grading.

7. **Understanding Movie Music.** (4) Lecture, four hours; outside study, eight hours. Musical experience helpful, but not required. Brief historical survey of film music, with strong emphasis on recent development: Japanese animation, advertising, and MTV, as well as computer tools and digital scoring methods. Designed to inspire and inform those interested in movie music. Offered in summer only. P/NP or letter grading.

14. **Introduction to Classical Music.** (5) (Same as Musicology M3) Lecture, four hours; discussion, one hour. Survey of music of Western classical tradition, with emphasis on historical context, musical meanings, and creation of tradition itself. P/NP or letter grading.
15. Art of Listening. (5) Lecture, three hours; discussion, one hour; outside study, 11 hours. Acquisition of listening skills through direct interaction with live performances, performers, and composers. Relationship to practice of listening to theoretical, analytical, historical, and cultural frameworks. Music as aesthetic experience and cultural practice. P/NP or letter grading.


19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion and critical thinking about topics of current intellectual importance, taught by faculty members with expertise and enthusiasm. Exploring many paths of discovery at UCLA. P/NP grading.

20A. Music Theory I. (3) Lecture, four hours. Preparation: passing score on departmental examination. Course 10B, which is enforced requisite to 20C. Students must receive grade of C or better to proceed to next course in sequence. Theory: species counterpoint through fifth species; description of triads and inversions. P/NP or letter grading.

20B. Music Theory II. (3) Lecture, four hours. Enforced requisite: course 20A with grade of C or better. Theory: diatonic harmony through secondary dominants and modulation; major and relative keys; writing of four-part chorales; style composition in baroque dance forms; introduction to figured bass notation. P/NP or letter grading.

20C. Music Theory III. (3) Lecture, four hours. Enforced requisite: course 20B with grade of C or better. Theory: chromatic harmony including development of tonality, 1800 to 1850; appropriate analysis and style composition. P/NP or letter grading.

21A-21B-21C. Project Approach to Music Theory I, II, III, (3–3–3) Lecture, 10 hours. Preparation: passing score on departmental examination. Course 21A is enforced requisite to 21B, which is enforced requisite to 21C. Students must receive grade of C or better to proceed to next course in sequence. Theory fundamentals through project approach. Letter grading.

30A-30B. History, Listening, and Survey of Piano Literature I, II. (2–2) Seminar, two hours. Strongly recommended for undergraduate piano and music education majors with piano as their main instrument. Survey course covering standard piano literature and composers throughout listening and reading. Letter grading. P/NP or letter grading.

40. Alexander Technique. (2) Lecture, four hours; outside preparation and practice, two hours. Limited to Ethnomusicology, Music, and MusicoLOGY majors. Introduction to the essentials of Alexander technique. Study of musician’s postural attitude at instrument, including physical movement as application of theory. Designed to help instrumentalists and vocalists prevent injuries and performance anxiety. May be repeated with consent of instructor. Letter grading.

60-60U. Instrumental Studio. (2 each) Studio, one hour; outside practice, up to eight hours. Limited to freshmen/sophomore Music Performance majors and junior and senior Music Composition majors. Students must perform in one practicum during academic year. Grades are assigned by applied instructor in fall and winter quarters and by jury examination in spring quarter. May be repeated for maximum of 12 units. P/NP or letter grading. 60A. Flute. 60B. Oboe. 60C. Bassoon; 60D. Clarinet; 60E. Saxophone; 60F. Trumpet; 60G. Trombone; 60H. Tuba; 60I. Percussion. 60K. Cello; 60L. Viola; 60M. Violin; 60N. String Bass; 60O. Harp; 60P. Guitar; 60Q. Lute; 60R. Viola da Gamba; 60S. Piano; 60T. Organ; 60U. Harpsichord.

61A. Voice Studio. (2 each) Studio, one hour; outside practice, six hours. Corequisite: course 61B or 61C. Limited to lower-division Music Performance majors specializing in voice and Music Education majors. Emphasis on repertoire and improving vocal performance. Grades are assigned by studio instructor in conjunction with student’s vocal coach for fall and winter quarters and by jury examination in spring quarter. May be repeated for maximum of 12 units. P/NP or letter grading.

61B. Voice Coaching. (1) Studio, one hour; outside practice, three hours. Corequisite: course 61A. Limited to lower-division Music Performance majors specializing in voice and Music Education majors. Emphasis on repertoire and improving vocal performance. Grades are assigned by studio instructor in conjunction with student’s vocal coach for fall and winter quarters and by jury examination in spring quarter. May be repeated for maximum of 12 units. P/NP or letter grading.

61C. Voice Coaching for Music Education Specialists. (5) Studio, 30 minutes; outside practice, 90 minutes. Corequisite: course 61A. Limited to lower-division Music Education majors. Emphasis on repertoire and improving vocal performance. Grades are assigned by studio instructor in conjunction with student’s vocal coach for fall and winter quarters and by jury examination in spring quarter. May be repeated for maximum of 12 units. P/NP or letter grading.

66. Composition Studio. (2) Studio, one hour per week to be arranged with instructor; outside study, five hours. Enforced requisites: courses 20A, 20B, 20C. Limited to Music Composition students and designed to be a basic introduction to composition lessons with assignments and compositions tailored to student progress and level of achievement. Lessons address counterpoint, voice-leading, harmonic and melodic construction, form, texture, style, notation, and performance feasibility. May be repeated twice for credit. P/NP or letter grading.

74A-74B-74C. Introduction to Singing Diction. (2–2–2) Studio/demonstration/performance, 90 minutes; outside study, four to five hours. Development of International Phonetic Alphabet (IPA) transcription skills, along with addressing issues of translation. Exploration of variety of repertoire including folk, art songs, early music, recitative, and folk songs. Transcription, translation, speaking, and singing of texts from pieces assigned in course, as well as from repertoire being prepared for jury. May be repeated for credit in spring only. P/NP or letter grading.

80. Beginning Keyboard. (4) Laboratory, five hours; preparation/practice, seven hours. Enforced requisite: course 102B or 102C. Basic keyboard skills together with basic aspects of music theory and its practical application to keyboard: sight-reading, tonality, chords, scales, cadences, simple compositions, and improvisations. May be repeated for credit without limitation. Offered in summer only. P/NP or letter grading.

80A. Beginning Guitar Class. (4) Laboratory, five hours; preparation/practice, seven hours. Introduction to guitar techniques, accompanying, and arranging for guitar; coverage of note reading and tablature. May be repeated for credit without limitation. Offered in summer only. P/NP or letter grading.

80S. Beginning Saxophone. (4) Laboratory, five hours; preparation/practice, seven hours. Fundamentals of playing saxophone, basic music theory and terminology necessary for reading music notation, and basic overview of instrument’s history. Offered in summer only. P/NP or letter grading.

80V. Vocal Technique for Beginners. (4) Laboratory, six hours; preparation/practice, six hours. Voice in-studio study for singers at intermediate level. Exploration of fundamentals of vocal technique, including overview of basics of proper breath control, resonance, care of voice, dictation, and interpretation. Begins vocal repertoire and aids in understanding these concepts. May be repeated for credit without limitation. Offered in summer only. P/NP or letter grading.

80W. Woodwind Technique for Beginners. (4) Laboratory, six hours; preparation/practice, six hours. Woodwind instruction designed to give students knowledge of fundamental concepts and techniques of saxophone, clarinet, oboe, bassoon, and flute. Offered in summer only. P/NP or letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and leveraged expertise. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

M90T. Early Music Ensemble. (4) Same as Musicology M90T. Activity, four hours. Preparation: audition. Group performance of Western vocal and instrumental music from historical periods prior to 1600. Early instruments may be used at instructor’s discretion. May be repeated for credit without limitation. P/NP or letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated, P/NP grading.

Upper-Division Courses

102A-102B-102C. Advanced Musicianship I, II, III. (2–2–2) Laboratory, four hours. Enforced requisites: courses M60A, M60B, M60C. Course 102A is enforced requisite to 102B, which is enforced requisite to 102C. Students must receive a grade of C- or better to proceed to next course in sequence. Advanced-level sight singing, sight reading, rhythm, melodic and harmonic dictation, tonal and modal improvisation, keyboard skills. Letter grading.

M103. Creating Musical Community. (4) Same as Ethnomusicology M103, Global Jazz Studies M103, and Musicology M103.) Seminar, four hours; discussion, one hour. Limited to school of music majors. Faculty and students make music together in different modes. Students learn certain repertoire, refine it, and bring it to concert performance. Students critically engage musical literacies and notion of social contract that forms basis of musical notation. Drawing from American music folk game traditions, highlights complex history of this country and way in which entire body is used as mediator when instruments are unavailable. Letter grading.

104A. Modal Counterpoint. (3) Lecture, three hours. Requisite: course 120C (accelerated section). In-depth exploration of styles and techniques of counterpoint of 15th and 16th centuries through written and analysis of important forms of period, including species, canon, free counterpoint, cantus, firmus, point of imitation, motet, ricercare, etc. Letter grading.

104B. Special Topics in Counterpoint. (3) Lecture, three hours. Requisite: course 120C (accelerated section). In-depth exploration of polyphonic styles and textures since 1750, with emphasis on late-19th- and 20th-century modes of expression, through writing and sight reading letter grading.
106A. Orchestration I. (4) Discussion, three hours. Requisites: courses 120C (accelerated section), 123C. Ranges and characteristics of instruments, with exercises in scoring for ensembles and orchestra. P/N or letter grading.

106B. Orchestration II. (4) Discussion, three hours. Requisites: courses 106A, 120C (accelerated section), 123C. Scoring and analysis for ensembles and orchestra. P/N or letter grading.

C109A. Oboe Reed Making. (1) Activity, one hour; outside study, two to three hours. Enrollment by consent of instructor. Discussion, one hour; outside study, two to three hours. Enrollment by consent of instructor. Introduction and overview of oboe reed making, including hands on training with tools and techniques necessary to develop and maintain oboe reeds. May be repeated for credit. May be concurrently scheduled with course C209A. P/N or letter grading.

C109B. Bassoon Reed Making. (1) Activity, one hour; outside study, two to three hours. Enrollment by consent of instructor. Discussion, one hour; outside study, two to three hours. Enrollment by consent of instructor. Introduction and overview of bassoon reed making, including hands on training with tools and techniques necessary to develop and maintain bassoon reeds. May be repeated for credit. May be concurrently scheduled with course C209B. P/N or letter grading.

110A. Learning Approaches in Music Education. (4) Lecture, two hours; activity, two hours; outside study, eight hours. Enforced requisite: course 20A. Introduction to music education with an emphasis on the development of understanding of teaching/learning of music. Consideration of issues and directions in teaching and learning of music. P/N or letter grading.

110B. Musicality and Creativity in Childhood. (4) Lecture, two hours; activity, two hours; outside study, eight hours. Requisites: courses 20A, 20B, 20C, 110A, 120A, 120B, 120C. Preparation of music education students and children for teaching music at preschool and elementary school levels. Development of understanding of developmental characteristics, diverse cultures, and learning needs of children and design of effective instructional strategies that are age-appropriate and responsive to children’s background. Focus on practice of student-centered curriculum where students are active learners and teachers are facilitators to become proficient in planning and activating learning environment that is conducive to optimal growth in their musicality and creativity. Frequent field visits. Letter grading.

110C. Comparative Study of Choral Music Education. (4) Lecture, two hours; activity, one hour; fieldwork, one hour; outside study, eight hours. Enforced requisite: courses 20A, 20B, 20C, 110A, 110B, 110C, 120A, 120B, 120C. Preparation for teaching choral music at middle and high school levels. Development of understanding of developmental characteristics, diverse cultures, and learning needs of adolescents and design of effective instructional strategies that are age-appropriate and responsive to students’ background. Diverse practices and learning processes in choral music of American and world serve as basis of study. May be repeated once for credit. P/N or letter grading.

111B. Music Creation and Analyses through Technology. (4) Lecture, four hours; discussion, one hour. Requisites: courses M6A, M6B, M6C, 111A (111A with grade of C or better), and 20A, 20B, and 20C, or 21A, 21B, and 21C. Students must receive grade of C or better to proceed to next course in sequence. Theory through improvisation, technology, and arranging for ensembles. Letter grading.

111C. Arranging Music for Educational Settings. (3) Lecture, four hours. Requisites: courses M6A, M6B, M6C, 111A (111A with grade of C or better), and 20A, 20B, and 20C, or 21A, 21B, and 21C. Theory through improvisation, technology, and arranging for ensembles. Letter grading.

111D. Guided Field Experiences in Music Education. (1) Field studies, three hours. Initial field experiences for students preparing to teach and earn single subject certification in music. Novice teachers work under direct guidance of UCLA music education faculty members and practicing public school instructor to develop and deliver instruction in K-12 settings. P/N or letter grading.

114A-114B. Study of Instrumental Techniques. (1-1) Studio, two hours; outside study, one hour. Enforced requisite: course 40A. Applied studies in basic performance techniques and tutorial materials. Each course may be repeated once for credit. Letter grading. 114A. High Strings. 114B. Low Strings.

114C-114D. Vocal Techniques for Music Education I, II. (1-1) Studio, two hours; outside study, one hour. Letter grading. 114C. Introduction to basic vocal techniques, breath and body, vocal mechanism, health and care of voice, and instrumental techniques. 114D. Requisite or corequisite: course 114C. Introduction to art of teaching voice, focusing on vocal instruction in choral classroom. Focus on application of vocal techniques to choral music teaching at K-12 school settings.

114J. Piano Skill in Classroom. (1) Activity, two hours. Designed for Music Education majors. Development of piano skills and competencies that enable students to function successfully in general music, instrumental ensemble, and choral ensemble classrooms. Letter grading.

115A-115B-115C. Study of Instrumental Techniques. (2-2) Studio, four hours; outside study, two hours. Enforced requisite: course 114C. Applied studies in basic performance techniques and tutorial materials designed to give music education students knowledge to teach basic instrument concepts. Letter grading.

115A. Woodwinds. 115B. Brass. 115C. Percussion.


117. Study and Conducting of Instrumental and Choral Literature. (2) Lecture, three hours. Requisite: course 116. Study and practice of conducting both instrumental and choral repertoire. In addition to further development of conducting gestures, focus on score study techniques, rehearsal techniques, style, and interpretation as applied to choral and instrumental repertoire. Letter grading.

C118A. Advanced Choral Conducting. (2) Lecture, one hour; studio, two hours. Requisites: courses 116, 117. Conducting basics, baton technique, beat patterns, dynamics, score preparation and analysis. May be repeated once for credit. Concurrently scheduled with course C218B. P/N or letter grading.

C118B. Choral Techniques and Methods. (2) Lecture, one hour; studio, two hours. Requisites: courses 116, 117. Conducting basics, baton technique, beat patterns, dynamics, score preparation and analysis. May be repeated once for credit. Concurrently scheduled with course C218B. P/N or letter grading.

119. Jazz and Technology Pedagogy. (3) Lecture, two hours; activity, two hours; outside study, five hours. Enforced requisite: courses 20A, 20B, 20C, 110A, 120A, 120B, 120C. Foundations for teaching jazz by development of understanding of curriculum, rehearsal techniques, improvisation, and uses of technology in jazz education. Technology understanding includes basic concepts of sequencing, composition, ensemble performance, and creation of multimedia presentations using tablet (iPad) technology. Letter grading.

120A. Music Theory V. (4) Lecture, four hours; discussion, four hours; preparation, four hours; pass/fail grading. Requisites: course 20C with grade of C (2.0) or better. Theory: baroque counterpoint including chorale prelude; two-part invention; three-part invention; canonic principles; analysis of inventions, canons, and fugues. Musicianship: sight-singing of extended chromatic melodies; advanced harmonic dictation (diatonic and chromatic); keyboard harmonization of modulating melodies; elementary score reading. P/N or letter grading.

120B. Music Theory VI. (4) Lecture, four hours; discussion, four hours; preparation, four hours; pass/fail grading. Requisites: course 120A with grade of C (2.0) or better. Theory: advanced harmonic dictation; preparation for departmental first-year examination. Requisite: course 20C with grade of C (2.0) or better. Theory: advanced harmonic dictation; preparation for departmental first-year examination. P/N or letter grading.

120C. Music Theory VII. (4) Lecture, four hours; discussion, two hours; preparation, two hours. Requisite: course 120B with grade of C (2.0) or better. 20th-century harmonic language: including voice leadings, chord progression features and their effects on the harmonic structure of music. Emergent and extended harmonic practice in harmonic, polytonal, free atonality, serialism, and minimalism. P/N or letter grading.

121. Special Topics in 20th-Century Music. (4) Lecture, four hours; preparation, four hours; pass/fail grading. Requisites: courses 20A, 20B, 20C, 120A, 120B, 120C. In-depth study of certain aspects of 20th-century music ranging from individual composers and schools to ideological or stylistic concerns. May be repeated once for credit. P/N or letter grading.


124A. Scoring for Symphony Orchestra. (4) Discussion, three hours. Requisites: courses 106B, 120C (accelerated section). Research papers and schools to ideological or stylistic concerns. May be repeated once for credit. P/N or letter grading.

124B. Scoring for Wind Ensemble. (4) Discussion, three hours. Requisites: courses 106B, 120C (accelerated section). Research papers and schools to ideological or stylistic concerns. May be repeated once for credit. P/N or letter grading.

M131. Development of Latin Jazz. (4) (Same as Ethnomusicology M131 and Global Jazz Studies M131.) Lecture, three hours. Some amount of formal music study and experience as vocalist or instrumentalist desirable but not essential. Introduction to history, tradition, and social and cultural context of music of different genres and approaches, and interactions between music and culture, society, and history. P/N or letter grading.

M132. Introduction to Armenian Music. (4) (Same as Ethnomusicology M132.) Lecture, three hours. Some amount of formal music study and experience as vocalist or instrumentalist desirable but not essential. Introduction to history, tradition, and social and cultural context of music of different genres and approaches, and interactions between music and culture, society, and history. P/N or letter grading.
dent’s vocal coach for fall and winter quarters and by jury examination in spring quarter. May be repeated for maximum of 1.5 units. P/NP or letter grading.

163A-163V. Recital for Music Education Majors. (2 each) Studio, one hour; outside study, five hours. Limited to junior/senior Music Education majors. Preparation for capstone recital comprising 35 to 55 minutes of music, including printed program. Recital is videotaped, archived, and evaluated by jury; written feedback is provided to student within two weeks of recital. Letter grading. 163A. Flute. 163B. Oboe. 163C. Bassoon. 163D. Clarinet. 163E. Saxophone. 163F. French Horn. 163G. Trumpet. 163H. Trombone. 163J. Tuba/Euphonium. 163K. Percussion. 163L. Violin. 163M. Cello. 163N. String Bass. 163O. Harp. 163P. Guitar. 163Q. Lute. 163R. Viola da Gamba. 163S. Piano. 163T. Organ. 163U. Harpsichord.

168. Capstone Voice Recital. (2) Studio, one hour; outside practice, six to eight hours. Corequisite: course 161B or 161C. Limited to upper-division Music Education majors and Music Performance majors specializing in voice. Voice techniques and health, including breath control, pitch accuracy, range, resonance, and flexibility. May be repeated for credit for maximum of 10 units. P/NP or letter grading.

169. Capstone Composition Recital. (2) Studio, one hour; outside study, five hours. Enforced requisite: courses 124A or 124B or 124C, and 166 (at least 10 units). Limited to senior Music Composition majors. Planning and completion of senior capstone recital comprising at least 30 minutes of music including printed program. Recital is videotaped, archived, and evaluated by jury; written feedback is provided to student within two weeks of recital. Letter grading.

171. Selected Topics in Keyboard Literature. (2) Lecture, two hours. Enforced corequisite: one course from 60S, 60T, 60U, 60S, 160T, 160U. In-depth study of selected topics in keyboard literature, concentrating on one composer, one genre, or one historical period. Analysis of musical and theoretical works, and actual performances by participants. May be repeated for credit. May be concurrently scheduled with course C271J. P/NP or letter grading.


CM182. Music Industry. (4) Same as Ethnomusicology CM182, Musicology CM186, and Music Industry M182.) Lecture, four hours; discussion, one hour; outside study, seven hours. Limited to Ethnomusicology, Music, and Musicology majors. Examination of influence of music industry on way music is created, performed, listened to, evaluated, and used today. Historical approach taken, beginning with music published in 18th century and continuing through development of audio recordings to MTV and popular music today. Concurrently scheduled with course CM252. Letter grading.

C158A. UCLA Chorale. (2) Activity, four hours. Preparation: audition. Large ensemble performing choral music of all periods appropriate for concert choral ensemble. May be repeated for credit without limitation. May be concurrently scheduled with course C480B. P/NP or letter grading.

C158B. Chamber Singers. (2) Activity, four hours. Preparation: audition. Designed primarily for Music Performance majors. Select mixed ensemble performing repertoire of vocal music of all periods. May be repeated for credit without limitation. May be concurrently scheduled with course C480B. P/NP or letter grading.

C185C. Opera Workshop. (Activity, six hours. Preparation: audition. Large ensemble performing scenes, orchestral literature, and open performances as well as concert and opera performance and rehearsals. May be repeated for credit without limitation. May be concurrently scheduled with course C480C. P/NP or letter grading.

C167G. Symphony Orchestra. (2) Activity, three hours. Preparation: audition. Group performance of symphonic orchestra literature. May be repeated for credit without limitation. May be concurrently scheduled with course C480D. P/NP or letter grading.

C158E. Philharmonia. (2) Activity, six hours. Preparation: audition. Designed primarily for Music Performance majors. Group performance of oratorio literature, as well as orchestral accompaniment for operatic and major choral works. May be repeated for credit without limitation. May be concurrently scheduled with course C480E. P/NP or letter grading.


C185G. Wind Ensemble. (2) Activity, six hours. Preparation: audition. Group performance of concert literature for wind ensemble. May be repeated for credit without limitation. May be concurrently scheduled with course C480G. P/NP or letter grading.

C185H. Marching and Varsity Bands. (2) Activity, six hours. Preparation: audition. Group performance of special band arrangements for football and basketball games. May be repeated for credit without limitation. May be concurrently scheduled with course C480H. P/NP or letter grading.

C186A. Piano/Keyboard Accompaniment. (2) Activity, four hours; outside study, two hours. Collaboration with large ensembles, instrumentalists, and/or vocalists in role of accompanists. Limited to all instrumentalists and/or vocalists. Collaboration includes, but is not limited to, lessons, rehearsals, special studio performance projects, master classes, concerts, auditions, juries, and recitals. May be repeated for maximum of 12 units. Concurrently scheduled with course C484A. P/NP or letter grading.

C186B. Guitar Accompanying. (2) Activity, four hours; outside study, two hours. Collaboration with instrumentalists and/or vocalists in role of accompanists.
Performance includes, but is not limited to, lessons, rehearsals, special studio performance projects, master classes, concerts, auditions, juries, and recitals. May be repeated for credit without limitation. Concurrently scheduled with course C494B. P/NP or letter grading.

C186C. Harp Accompaniment. (2) Activity, four hours; outside study, two hours. Collaboration with instrumentalists. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of a final paper. Performance includes, but is not limited to, lessons, rehearsals, special studio performance projects, master classes, concerts, auditions, juries, and recitals. May be repeated for credit without limitation. Concurrently scheduled with course C494C. P/NP or letter grading.

C188. Seminar: Special Topics in Music. (4) Formerly numbered 188.) Seminar, three hours. Exploration of topics in music through variety of approaches that may include projects, performances, readings, discussions, research papers, and oral presentations. Topics announced in advance. May be repeated for credit. May be concurrently scheduled with C292. P/NP or letter grading.

188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of a final paper. Performance includes, but is not limited to, lessons, rehearsals, special studio performance projects, master classes, concerts, auditions, juries, and recitals. May be repeated for credit without limitation. Concurrently scheduled with course C494C. P/NP or letter grading.

188SB. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: course 188SA. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to finalize course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced corequisite: course 188SB. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE 88S course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be arranged by advisor and student. Tangible evidence of mastery of subject matter (research project) required. May be repeated for maximum of 8 units. Individual contract with supervising faculty member required. P/NP grading.

195. Community or Corporate Internships in Music. (2 to 4) Tutorial, six hours. Limited to juniors/seniors. Internship option is open to students in community agency or business. Students meet on regular basis with supervising instructor and submit periodic reports of their work experiences. May be repeated for maximum of 8 units. Individual contract with supervising faculty member required. P/NP grading.

201. Comprehensive Examination. (2) Seminar, two hours. Examination of student’s work in major area. May be repeated for credit. May be repeated for credit. May be repeated for credit. SU or letter grading.

M201. Repertory and Analysis. (2) Same as Musico 3201.) Seminar, two hours. Required or corequisite: Musicology 200a. Exploration of defined repertory through readings and analysis. Specific topics vary. May be repeated for credit. SU or letter grading.

202. Analysis for Performers. (4) Lecture, three hours; outside study, nine hours. Designed for graduate students. Survey of analytical techniques and approaches required for professional performers, including phrase structure, harmonic rhythm and prolongation, small and large forms, theories of musical coherence, and understanding of styles. Letter grading.

203. Notation and Performance. (4) Lecture, three hours; studio study, nine hours. Designed for graduate music students. Survey of evidence of performers use to make their interpretive decisions in performance of vocal and instrumental music of European and American traditions; composition, tempo indications, expressive notation, use and influence of recordings, composer-performer relationship, and nonstandard notation. Letter grading.

204. Music Bibliography for Performers. (4) Lecture, three hours; outside study, nine hours. Designed for graduate music performance students. Survey of general bibliographic techniques in music, with emphasis on materials for performing musicians. Letter grading.

C209A. Oboe Reed Making. (1) Activity, one hour; outside study, two hours. Enrollment by consent of instructor. Introduction and overview of oboe reed making, including hands on training with tools and techniques necessary to develop and maintain oboe reeds. May be repeated for credit. May be concurrently scheduled with course C109A. S/U or letter grading.

C209B. Bassoon Reed Making. (1) Activity, one hour; outside study, two hours. Enrollment by consent of instructor. Introduction, overview, and hands-on training with tools and techniques necessary to develop and maintain bassoon reeds. May be repeated for credit. May be concurrently scheduled with course C109B. S/U or letter grading.

C218A. Advanced Choral Conducting. (2) Lecture, one hour; studio, two hours. Requisites: courses 116, 117. Conducting basics, baton technique, beat patterns, dynamics, score preparation and analysis. May be repeated once for credit. Concurrently scheduled with course C218A. Letter grading.

C218B. Choral Techniques and Methods. (2) Lecture, one hour; studio, two hours. Requisites: courses 116, 117, C218A. Vocal and choral pedagogy, vocalizing and warm-up techniques, diction, and rehearsal and audition techniques. May be repeated once for credit. Concurrently scheduled with course C218B. S/U or letter grading.

C226. Electronic Music Composition. (4) Lecture, three hours; laboratory, three hours. Preparation: advanced experience and accomplishment in serious composition (art music), two years of music theory. Designed for graduate students. Limited enrollment. Exercises in electroacoustic orchestration, meta-pitch composition, notation software (Sibelius), sequencing and scoring computer collage (Pro-Tools), and final project. May be concurrently scheduled with course C176S. S/U or letter grading.


252. Seminar: Composition. (4) Seminar, three hours. Compositional projects for varying acoustic instrumental and vocal ensembles. Students expected to perform their compositions from sketches at piano or present notation files of work-in-progress with playback file, where appropriate. Performance of completed works in graduate composition concerts by UCLA student performers. S/U or letter grading.

253. Seminar: Special Topics in Composition and Non-Western Musics; Jazz. (4) Seminar, four hours; outside study, nine hours. Designed for graduate students. Limited enrollment. Exercises in electroacoustic orchestration, meta-pitch composition, notation software (Sibelius), sequencing and scoring computer collage (Pro-Tools), and final project. May be concurrently scheduled with course C176S. S/U or letter grading.

254. Advanced Music Analysis: Pre-Tonal Music. (4) Seminar, three hours. One hour on general graduate composition students with in-depth exposure to complex and rich works of late Middle Ages through dawn of baroque era. Exploration of analytical techniques and methods not covered in analysis of works of tonal and post-tonal periods, and approaches to musical structures used by composers before modern tonal harmonic syntax had fully developed. Letter grading.

255. Advanced Music Analysis: Tonal Music. (4) Seminar, three hours. Discussion of theoretic approaches to and analysis of selected works of practice era. Among study pieces using various theoretic approaches discussed and presentation of analyses in class. Letter grading.

256. Advanced Music Analysis: Post-Tonal Music. (4) Seminar, three hours. Designed for graduate music analysis class. Discussion of the role of composition treatises as related to period; analytical reports into unrealistic effect when they merge, as in MTV, dream sequences, or montages. Study of three principal areas of film-making—preproduction, production (shooting), and postproduction. Examples from classic movies and discussion of their scores. Composition of actual cues for acoustic instruments coordinated to picture to be term project. Separate cues involve dialogue, melo-drama, comedy, chase, memory montage, and tension. Letter grading.

260B. Seminar: Composition for Motion Pictures and Television. (6) Seminar, three hours; laboratory, three hours. Focus on task of completing entire theme music assignment as part of course. Discussion of recent television shows. Composition of one original title song and short cues to someone else’s song required. Term assignment involves studio orchestra recording cue. Project to approximate actual conditions of completing professional Hollywood assignment, from spotting to scoring. Letter grading.

261A-261J. Problems in Performance Practices. (4 each) Seminar, three hours; outside study, nine hours. Limited to graduate performance students. Investigation of primary source readings in performance practice as related to period; analytical reports into practical applications in class demonstrations. May be repeated for credit. Letter grading. 261A. Medieval. 261B. Renaissance; 261C. Baroque; 261D. Classical; 261E. Romantic; 261F. Contemporary; 261G. Jazz.

266. Graduate Composition Studio. (4) Studio, one hour arranged with instructor; outside study, 11 hours. Limited to graduate composition students. One-on-one composition lessons, with assignments and comments tailored to each student’s level of achievement, addressing counterpoint, voice-leading, harmonic and melodic construction, orchestration, form, texture, style, notation, and performance feasibility of composition.ability to composition on advanced level. Presentation of at least one composition composed during course in graduate composition concert during academic year. May be repeated for credit without limitation. S/U or letter grading.

270A-270G. Seminars: Music Education. (6 each) Seminar, three hours; May be repeated for credit without limitation. S/U or letter grading. 270A. History; 270B. Non-Western Musics; 270C. Curriculum Inno-vations; 270D. Tests and Measurements; 270E. Choral Literature; 270F. Instrumental Literature; 270G. General Topics.

C271. Selected Topics in Keyboard Literature. (2 Lecture, two hours. Enforced corequisite: course 4805 or 480T or 460U. In-depth study of selected topics in keyboard literature, concentrating on problems of performance through analysis, historical and comparative studies, and actual performances by participants. May be repeated for credit. May be concurrently scheduled with course C171. S/U or letter grading.

CM282. Music Industry. (4) Same as Ethnomusi-con 288 and Musicology 288.) Lecture, four hours; discussion, one hour; outside study, seven hours. Limited to Ethnomusicology, Music, and Musicology majors. Examination of influence of music industry on way music is created, performed, listened to, evaluated, and used. Historical approach taken, beginning with music published in 18th century
and continuing through development of audio recordings to MTV and popular music today. Concurrently scheduled with course CM182. Letter grading.

290. Composition Forum. (2) Seminar, two hours. Weekly forum to present professional composers of a range of mediums, including large ensemble vocal and/or instrumental works, chamber music, electronic music, and film/television, as guest lecturers. Letter grading.

C292. Seminar: Special Topics in Music. (4) Formerly numbered 292.) Seminar, three hours. Exploration of topics in music through variety of approaches that may include projects, performances, readings, discussions, and/or presentations. Topics announced in advance. May be repeated for credit. May be concurrently scheduled with C188. S/U or letter grading.

330. Introduction to Orff Schulwerk. (2) Lecture, 10 hours; discussion, five hours; laboratory, 15 hours. Intended for teachers of music, church musicians, and music therapists who have had little or no previous experience with Orff Schulwerk. Introduction to Orff Schulwerk, including history, philosophy, and teaching processes of this approach to music instruction for children. Offered in summer only. S/U or letter grading.

331A-331B-331C. Orff Schulwerk Training Courses. (4–4–4) Lecture, four hours; discussion, one hour. Requisite: course 330. Course 331A is requisite to 331B, which is requisite to 331C. In-depth courses in teaching of Orff Schulwerk approach to music instruction for those who successfully complete each course are eligible for certification at that level through American Orff Schulwerk Association. S/U or letter grading. 331A. Level I (Beginning); 331B. Level II (Intermediate); 331C. Level III (Advanced).

341. Conducting for High School and College Band/ Wind Ensemble Teachers. (2) Lecture, two and one half hours. Comprehensive view of current trends in band/wind ensemble programs, including nonverbal communication, conducting, and rehearsal techniques. Study of new and recently published literature and discussions of administration of band/wind ensemble programs. May be repeated for credit without limitations. S/U or letter grading.

342. Contemporary Marching Band. (1) Lecture. Two hours. Innovative approaches to marching band programs for high school and college teachers, including creative approaches to charging and drill design and use of microcomputers in schools. Courseware to be experienced and reviewed, jargon defined and illustrated, and practical hands-on experience obtained. May be repeated for credit without limitation. Offered in summer only. S/U or letter grading.

350B. Exploration of MIDI Computer Resources: Lecture, two hours; study of, two hours; laboratory, three hours. Creative use of MIDI-based synthesizers under computer control. Exploration of available hardware resources allied with various software sequences for music composition and score printing. Hands-on experience. May be repeated for credit without limitation. Offered in summer only. S/U or letter grading.

371. Marching Band in Secondary Education. (2) Lecture, two hours; study of, two hours; laboratory, two hours. A survey of marching band as component of music curriculum in secondary education, including current approaches, practices, and problems associated with marching bands, as well as and discussion of student teaching. Concurrently scheduled with course CM182. Letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, one hour. May be repeated for credit. Concurrently scheduled with course C188. S/U or letter grading.

401. New Music Forum. (2) Tutorial/laboratory, two hours; study of, four hours. Presentation of undergraduate student study in music at UCLA. Interactive course in preparation and performance of premiere work especially composed for graduate performer or performers by graduate composers. May be repeated for credit. S/U grading.

450. Keyboard Skills for Pianists. (2) Activity, two hours; outside study, four hours. Applied music course with focus on necessary skills for piano performance. Areas include sight playing, score reading, transcription, figured bass, harmonization, improvisation, score reduction, and ensemble issues. Concurrently scheduled with course C150. Letter grading.

455S. Instrumental and Piano Duo Repertoire. (2) Activity, two hours; outside study, four hours. Performance-based course that develops repertoire and experience in collaborative performance for pianists and instrumentalists. Activities include weekly score preparation, weekly rehearsals, regular coaching, and performances for lessons, juries, recitals, master classes, auditions, and other activities. Regular coaching with faculty members, weekly performance workshop, and rehearsals. Concurrently scheduled with course C150. Letter grading.

458A–458G. Advanced Vocal Repertoire, Diction, and Interpretation. (2) Activity, two hours; outside study, four hours. Performance-based course that develops repertoire and experience in collaborative performance for pianists and instrumentalists. Activities include week score preparation, weekly rehearsals, regular coaching, and performances for lessons, juries, recitals, master classes, auditions, and other activities. Regular coaching with faculty members, weekly performance workshop, and rehearsals. Concurrently scheduled with course C150. Letter grading.


461B. Graduate Voice Coaching. (1) Studio, one hour; outside practice, three hours. Corequisite: course 461A. Limited to graduate voice students. Emphasis on repertoire and improving performance. Grades are assigned by studio instructor in consultation with student’s vocal coach for fall and winter quarters and by jury examination in spring quarter. Letter grading.

466. Graduate Instruction in Performance: Jazz. (6) Lecture, two hours; study of, two hours; laboratory, two hours; outside study and preparation, nine hours. Preparations: advanced proficiency on one musical instrument. Designed for graduate music students. Study of art of teaching jazz; musical interpretation; group discussion of philosophy of teaching, learning process itself, and teaching of musical interpretation. Individualized study of various considerations, such as physical/technical aspects and pedagogical repertoire, peculiar to teaching student’s primary instrument. Letter grading.

471. Vocal Pedagogy. (4) Lecture, three hours; discussion, one hour. Preparation: advanced proficiency in voice. Designed for graduate music students. Study of art of teaching voice; musical interpretation; group discussion of vocal technique, teaching of singing, and performance of repertoire. Letter grading.

472. Master Class in Opera. (6) Studio, three hours; outside study, 15 hours. Limited to graduate performance students. Intensive study and preparation of opera literature. May be repeated for credit. S/U or letter grading.

475. Master Class in Conducting. (6) Studio, three hours; outside study, 15 hours. Limited to graduate performance students. Intensive study and preparation of conducting repertoire. May be repeated for credit. S/U or letter grading.

480A. UCLA Chorale. (2) Activity, four hours. Preparation: audition. Large mixed ensemble performing choral music of all periods appropriate for concert choral ensemble. May be repeated for credit without limitations. May be concurrently scheduled with course C185A. S/U or letter grading.

480B. Chamber Singers. (2) Activity, four hours. Preparation: audition. Select mixed ensemble performing choral music of all periods. May be repeated for credit without limitation. May be concurrently scheduled with course C185B. S/U or letter grading.

480C. Opera Workshop. (2) Activity, six hours. Preparation: audition. Rehearsal and performance of scenes and complete operas, as well as repertoire, staged, in preparation for large language diction coaching. May be repeated for credit without limitation. May be concurrently scheduled with course C185C. S/U or letter grading.

480D. Symphony Orchestra. (2) Activity, four hours. Preparation: audition. Group performance of symphonic orchestra literature. May be repeated for credit without limitation. May be concurrently scheduled with course C185D. S/U or letter grading.

480E. Philharmonia. (2) Activity, four hours. Preparation: audition. Group performance of symphonic orchestra literature, as well as orchestral accompaniment for operatic and major choral works. May be repeated for credit without limitation. May be concurrently scheduled with course C185E. S/U or letter grading.

480G. Wind Ensemble. (2) Activity, six hours. Preparation: audition. Group performance of wind ensemble literature, as well as orchestral ensemble performance. May be repeated for credit without limitation. May be concurrently scheduled with course C185G. S/U or letter grading.

484A. Piano/Keyboard Accompanying. (2) Activity, four hours; outside study, two hours. Collaboration with large ensembles, instrumentalists, and/or vocalists in role of accompanists. Performance includes, but is not limited to, lessons, rehearsals, special studio
performance projects, master classes, concerts, auditions, juries, and recitals. May be repeated for maximum of 12 units. Concurrently scheduled with course C166A. S/U or letter grading.

C484B. Guitar Accompanying. (2) Activity, four hours; outside study, two hours. Collaboration with instrumentalists and/or vocalists in role of accompanists. Performance includes, but is not limited to, lessons, rehearsals, special studio performance projects, master classes, concerts, auditions, juries, and recitals. May be repeated for credit without limitation. Concurrently scheduled with course C166B. S/U or letter grading.

C484C. Harp Accompanying. (2) Activity, four hours; outside study, two hours. Collaboration with instrumentalists and/or vocalists in role of accompanists. Performance includes, but is not limited to, lessons, rehearsals, special studio performance projects, master classes, concerts, auditions, juries, and recitals. May be repeated for credit without limitation. Concurrently scheduled with course C166C. S/U or letter grading.


495. Introductory Practicum for Teaching Apprentices in Music. (2) Eight weekly two-hour seminar sessions, plus intensive training session during Fall Quarter registration week. Preparation: appointment as teaching apprentice in Music Department. Required of all new teaching apprentices. Special course dealing with problems and practices of teaching music at college level. May not be applied toward degree requirements. S/U grading.

496. Technology Seminar. (2) Seminar, two hours; laboratory, one hour; outside study, three hours. Introduction to departmental and campuswide technology resources, exploration of applications of technology in education, and development of means of using technology to assess and document teaching competence. S/U grading.


596A. Directed Individual Studies in Orchestration and Composition. (2, 4, or 6) Tutorial, to be arranged. Only 4 units may be applied toward MA or MM degree requirements. May be repeated for credit. S/U or letter grading.

596C. Directed Individual Studies in Music Education. (2, 4, or 6) Tutorial, to be arranged. Only 4 units may be applied toward MA or MM degree requirements. May be repeated for credit. S/U or letter grading.

596D. Directed Individual Studies in Performance Practices. (2 to 12) Tutorial, to be arranged. Only 4 units may be applied toward MA or MM degree requirements. May be repeated for credit. S/U or letter grading.

597. Preparation for Master's Comprehensive Examination or PhD Qualifying Examinations. (2 or 4) Tutorial, to be arranged. S/U grading.

598. Guidance of MA Thesis. (4, 8, or 12) Tutorial, to be arranged. Only 4 units may be applied toward degree requirements. May be repeated for credit. S/U grading.

599. Guidance of PhD or DMA Dissertation. (4, 8, or 12) Tutorial, to be arranged. May be repeated for credit. S/U grading.

Music Industry
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Overview
The Music Industry Interdepartmental Program prepares students for transformative, creative career paths in and around an ever-evolving music industry. Committed to diversity and justice in the music industry, the program provides challenging historical, critical, and global perspectives through diverse collaboration with the Herb Alpert School of Music’s departments of Music, Musicology, and Ethnomusicology, and with other UCLA professional and arts schools. Fostering students’ intellectual and musical creativity equips them to recognize and develop the creativity of others. Balanced programs of courses and projects build the technical, computational, fiduciary, communicative, and marketing skills necessary for success in any part of the professional music world. Internships, mentoring, and individualized capstone projects give students direct experience with working music communities, and forge lifelong connections between our students and faculty, engaged industry professionals and the world.

Undergraduate Major
Music Industry BA
Capstone Major
Music Industry is a designated capstone major. Undergraduate students must complete a senior thesis that demonstrates the skills and expertise they have acquired in earlier coursework. This requirement may be fulfilled through a written research paper, but, given the experiential nature of the Music Industry degree, it may also be fulfilled by the honoring of creative expression for personal or political effect (songwriting, production, etc.), by problem solving or entrepreneurial initiatives in the music industry (music tech start-up, record label, etc.), or by experiential learning in an organization outside of academia (entrepreneurial, community, or corporate project with formal reporting). Students in the capstone are expected to work together to curate their collective work and experience in a formal and public capstone event, which may include online and virtual components as well as a live performance showcase for creative work.

Learning Outcomes
The Music Industry major has the following learning outcomes:

• Understanding of basics of economics and accounting, and master advanced financial concepts relevant to the entertainment and concert industry, including the management of intellectual property rights
• Understanding through study and performance of basic parameters of music, and how it works as a communicative language and a cultural force
• Displayed familiarity with the current practices of music and law, artist management, digital marketing, music publishing, concert and tour promotion, and other key tasks of the music and entertainment industries
• Demonstrated working understanding of acoustics, audio technology, audio engineering, studio production, and electronic music making
• Effective spoken and written communication and negotiation
• Understanding of how to plan, organize, and budget complex projects
• Development of techniques for managing and motivating collaborative and creative teams
• Engagement with analytical and historical research to development broad critical understanding of social, economic, and historical underpinnings of the global music industry, with special attention given to race/gender equity and music as a force for social justice
• Creation of collaborative networks with others in the music industry
• Acquisition of direct experience in characteristic music industry working environments, and reflection on that experience
• Participation in sustained mentoring relationships
• Assembling of a portfolio of relevant work experience and achievements

Entry to the Major
Admission
Applicants are reviewed individually, based on a questionnaire, grade-point average, test scores, a personal statement of purpose, a portfolio review, and an interview.

Transfer Students
Transfer applicants to the Music Industry major with 90 or more units must complete as many
of the following introductory courses as possible prior to admission to UCLA: at least two quarters of musicianship or music theory training equivalent to Music Industry 20A and 20B, and at least two quarters of study in finance and accounting equivalent to Music Industry 10A and 10B.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major

Required: (1) Music Industry core—Music Industry 1 (three quarters), 2, 10A, 10B, 20A, 20B, 25; (2) Ensemble—four units in one ethnomusicology, music, or music industry ensemble; (3) History and Culture of Music—one course from Ethnomusicology 20A, 20B, M25, 30, M35, 40, 45, M50A, M50B, M110A, M110B, Music Industry 29, 55, MusicoLOGY 5, 7, 8, 13, 60, 61, 64, 65, 68, 94; (4) Race, Culture and American Music—one course from Ethnomusicology M35, M50A, M50B, M110A, M110B, Musicology 64, 65, 75; (5) Communication Fundamentals—Communication 1 or equivalent.

The Major


Policies

Preparation for the Major

Each course must be taken for a letter grade.

Undergraduate Minor

Music Industry Minor

The Music Industry minor is intended to provide students with an introduction to the history, theory, and practice of music as a calling and a business; and to provide opportunities for students to work with practitioners on real-world projects in the music industry.

Admission

To apply to the minor, transfer students must have completed a minimum of one term of residency at UCLA, and students admitted as first years must have completed a minimum of three terms of residency at UCLA. Students must be in good academic standing with an overall grade-point average of at least 2.0.

In addition, students who are not enrolled in a major within the Herb Alpert School of Music must complete at least one performance or ensemble course selected from Ethnomusicology 91A through 91Z, Global Jazz Studies 176A through 176G, Music M90T, C185A through C186C prior to application to the minor. The performance requirement may also be fulfilled through successful completion of Music Industry 91A, 91B, 111A, 111B, or through an equivalent music industry course by petition.

The Minor

Required Courses (28 units): Music Industry 101, 195CE (8 units), and five additional courses (20 units) selected from Ethnomusicology M25, 30, M35, C100, 105, M110B, 117, C155, C184, Music C176, Musicology 128, M137, 140, 164, 165, 177, 185, Music Industry 29, 55, 95, M103 through 188, 195CE, 197.

Music Industry

Lower-Division Courses

1. Music Industry Forum. (1) Lecture, one hour. Introduction to conceptual and contemporary issues in global music industry through interaction with instructor, guest lecturers. May be repeated for credit. P/NP grading.

2. Music Industry Fundamentals. (4) Formerly numbered 102. Lecture, three hours; discussion, one hour. Introduction to current music industry. Overview of career paths, monetization strategies, organizational behavior, and entrepreneurial thinking. Designed to serve as gateway for music industry degree programs. Students familiarize themselves with basic functions of industry that are covered in greater detail in upper-division coursework. Letter grading.

4. Reel Beatles: Understanding Beatles through Film and Media. (5) Lecture, three hours; discussion, one hour. Designed to tell story of the Beatles through visual media. Covers over 80 years of their lives, their journey, and enormous impact they had on world. Focus on how the Beatles were seen on television and in film. Examination of their most impactful filmed performances, movies they made as group, their promotional videos, their landmark broadcast moments, documentaries made about them while still they were together, television interviews they did after group broke up, best documentaries made about them since 1970, and official and unofficial documentaries about the Beatles they did together as well as Peter Jackson’s 2021 documentary. Letter grading.

10A-10B. Finance and Accounting in Music Industry I, II. (4–4) Lecture, three hours. Introduction to how money works in both nonprofit and for-profit music industries, including practical management of funds, budgeting, (including tour budgets), fees, scales, service agreements, issues pertaining to trade unions, and various modes of accounting for salary, royalties, local and international taxation, streaming revenues, licensing payments, and other income and expenditure. Letter grading. 10B. Requisite: course 10A.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

20A-20B. How Music Works I, II. (4–4) Lecture, four hours; recitation, one hour. One accession to real-world applications of music in technological era of mass culture, and reconsideration of music theory for global 21st century music professional. How organized sound can become source of pleasure, mode of communication, strategy of resistance, and (sometimes) source of intellectual property. No particular style of music or type of notation is privileged, and no traditional musical training is required. Letter grading. 20B. Requisite: course 20A.

25. Fostering Musical Creativity: Artists and Repertoires. (4) Lecture, four hours; outside study, eight hours. Beginning from psychology of creativity (James, D. & D. Csikszentmihalyi, Transcendence, literature, exploration of creative process and how to foster and control it; and collaborative process with producer, manager, labels, and other executives. Topics include path of individual development versus collective; individuality; structure and freedom; collaboration and how teams work, including inside and outside concert hall and recording studio; focus on career building; feed-back and evaluation. Special attention to musical creativity and its rhythms. Letter grading.

29. Docs that Rock: Music Documentary in History and Practice. (5) Lecture; three hours; discussion, one hour. One hour look at history of popular music documentaries. Viewed through very specific focus of story and storytelling. Students may develop their own documentary project as part of coursework. P/NP or letter grading.

55. Songwriters on Songwriting. (4) Lecture, three hours; discussion, one hour. With special focus on songwriting renaissance of rock era, examination of work of important songwriters of post-World War II generation (circa 1952–1994) and those they have influenced. Practical industry guidance from current and noteworthy practitioners. Coverage of songwriting, arrangement and record production, music publishing, and record business in 20th and 21st centuries. Guest music industry professionals demonstrate individual creative processes and paths to songwriting and their place in world of music. Course is not workshop or tutorial on how to write songs. (See course 112.) P/NP or letter grading.

70. Apprenticeship in Music Industry. (2 or 4) Tutorial, to be arranged. Under general supervision of UCLA faculty member, students work with various UCLA faculty and staff in production of live concert events, in UCLA recording studio, or as part of media production team led by UCLA faculty or staff. Written evaluation of apprenticeship work is provided by those supervising it directly. May be repeated for credit. Individual Contract with workplace supervisor required. P/NP grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through small groups, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

91A-91B. Rock/Pop Studio Ensemble I, II. (2–2) Activity, five hours. Course 91A is requisite to 91B. Performance-based introduction to popular music styles, forms, and competencies through immersion in studio performance techniques. Students perform in groups to develop ensemble, create material, and produce recordings. P/NP or letter grading.

95. Introduction to Community or Corporate Internships in Music Industry. (4) Tutorial, eight hours. Entry-level community or corporate internship for lower-division students who have completed 90 or
fewer units. Internship in supervised setting in community organization, agency, or private business. Students meet on regular basis with instructor and provide periodic reports of their experience. May be repeated for maximum of 8 units. Individual contract with supervising faculty member required. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised regularly), four hours; outside study, eight hours. Individual contract required; consult Undergraduate Research Center. May be repeated, P/NP grading.

Upper-Division Courses

101. Seminar in Music Industry. (4) Seminar, four hours; outside study, eight hours. Required of Music Industry minors. Introduction to intellectual and theoretical frameworks that form Music Industry minor and that scholars of music and music industries have developed to analyze, understand, and perhaps judge what happens out there, including how music business works in financial, social, and artistic terms, and how music technologies of recording, reproduction, and consumption operate, and how basic music science from acoustics to brain biology to music perception affects how music is produced and heard. Letter grading.

M103. Music, Mind, and Brain. (4) Same as Neuroscience M170.) Seminar, three hours; outside study, nine hours. Multidisciplinary approach to understanding brain mechanisms mediating music perception, performance, and cognition. Students’ natural interest in music serves as springboard for learning basic concepts about brain and mind, and how brain works to determine perception of harmony and rhythm, emotion and meaning in music, and musical creativity. Designed to help students understand methodologies currently used to investigate brain-behavior correlates. Broad understanding of research topics in cognitive neuroscience; introduction to fundamental principles in neurophysiology, psychophysiology, and neuropsychology. Letter grading.

104A. Music and Law. (4) Seminar, three hours; outside study, nine hours. Fundamentals of American law as it applies to entertainment business, with special attention to music and its use in film, television, and new media. Legal aspects of stewardship in entertainment business and basic business practices. Exploration of legal aspects of process of producing works in entertainment field, from acquisition of rights and talent through production and distribution. Letter grading.

104B. Legal and Business Aspects of Music Publishing. (4) Seminar, three hours. Exploration of legal and business aspects surrounding creation and distribution of musical compositions in today’s evolving marketplace. Detailed exploration of rights afforded songwriters under Copyright Act of 1976, and practical review of ability of these authors to control and monetize these rights, review and practical analysis of agreements involved from inception to global exploitation of compositions including co-writer agreements, registration of songs, administration agreements, public performance agreements, and samplers. Exploration of financial implications for songwriters of these agreements. Letter grading.

104C. Legal and Business Aspects of Sound Recordings. (4) (Formerly numbered 104B.) Seminar, three hours; outside study and research, nine hours. Exploration of legal and business aspects of production and distribution of sound recordings. More detailed practical focus on legal aspects of recording process itself, from initial recording through assembly of material to distribution and collection of royalties, with material covered also relevant to audio-visual recordings. Introductory presentation on contract, copyright, and trademark law as background to step-by-step process of securing agreements necessary for production and commercial distribution of recordings. Letter grading.

107A. Engineering and Production Fundamentals. (4) Lecture, two hours; studio, one hour; outside study, nine hours. Introduction to basic acoustic principles, practical and working procedures for equipment used in contemporary music production, including microphones, mixers, recorders, synthesizers, and sequencers. Basic sound processing operations (equalization, compression, distortion, reverberation) and basic operating procedures of music production software and hardware. Letter grading.

107B. Engineering and Production for Musicians. (4) Seminar, four hours; outside study, eight hours. Enforced requisite: course 107A. Examination of selected technological elements in greater depth than in course 107A, while applying established concepts to broad range of creative scenarios and applications. Basic familiarity with standard audio workstation software in use in music industry and introduction to fundamental theoretical concepts in audio engineering, psychoacoustics, mixing, mastering, and sound recording. Development of critical listening skills through in-class and assigned listening. Letter grading.

108. Founding and Sustaining Performing Arts Organizations. (4) Seminar, four hours. Examination of principles and practices of founding performing arts organizations, beginning with inspiration to do so, clarifying organization mission, and mechanics of becoming nonprofit corporations; issues of funding, press relations, fundraising, setting up accounting; me- chanics, legal, and routine of running arts businesses; establishing relationships with other organizations in field; issues of making and distributing recordings. Students create on paper one performing arts organization, including developing mission statement, preparing bylaws, and writing sample grant proposals. Letter grading.

110. Music Business Now. (4) Seminar, three hours. Hands-on introduction to business of music, with emphasis on marketing and media. Students work in teams to develop strategies for real-world artists. P/NP or letter grading.

111A-111B. Rock/Pop Studio Ensemble I, II, (4-6) Studio, four hours; outside study, four hours. Performance-based introduction to popular music styles, forms, and competencies through immersion in studio performance techniques. Students play in groups to develop ensemble, create material, and produce recordings. May be repeated for credit. P/NP or letter grading. 111A. (Formerly numbered 111.) 111B. Requisite: course 111A.

112A. Introductory Songwriting. (4) Seminar, four hours; outside study, eight hours. Learning and employment of craft of songwriting. Examination, analysis, and implementation of song structure, lyric and melody writing, song revising, and song recording techniques. Evolution of songwriting in modern society since advent of phonograph player/ radio; how songs and society affect and reflect one another; how this has informed songs and songs and songwriting. Letter grading.

112B. Advanced Songwriting. (4) Seminar, four hours; outside study, eight hours. Enrollment by consent of instructor. Seminar in contemporary songwriting practices for intermediate to advanced songwriter. Emphasis on collaboration, flexibility, and working within teams to master specific songwriting challenges. All genres and styles of music accommodated. Letter grading.

112C. Songwriter’s Workshop. (1 or 2) Seminar, three hours. Enforced requisite: course 112A or 112B or permission of instructor. Provides supportive community for songwriters to work together under the supervision of Music Industry faculty. Students present their songs in progress, form teams for collaboration, and may undertake professionalization exercises like portfolio construction, song presentation, writing to synchronization, etc. Main focus is individual musical growth. May be repeated for credit. P/NP or letter grading.

113A. Music Supervision. (4) (Formerly numbered 113.) Seminar, three hours. Examination of role of music supervisor and creative, logistical, and budget considerations of music supervision. Development of theoret-
124B. Music Industry Entrepreneurship and Innovation. (4) Formerly numbered 124.) Seminar, four hours. Principles of entrepreneurship and fundamental business management. Moving forward with critical thinking and project-based group assignments. Students develop business plans, pitch them, and build out infrastructure for startups that focus on technology and innovation in music industry. Students are encouraged to make connections at MusicBiz, MIEEA, and startup.ucla.edu. Letter grading.

125. Artist Management. (4) Seminar, four hours. Holistic principles of artist management including articulating and advancing artistic vision, coordinating multiple revenue streams, psychology of managing artists and creative mind, and ethical practices in artist management. Basics of negotiation and compensation; artist promotion; career shaping; legal aspects of artist management; contemporary Internet-based strategies for artist promotion; merchandising and monetizing fandom. Students work to discover, sign, and break local artists across numerous genres. Letter grading.

128. Global Music Industry. (4) Seminar, three hours. Introduction to global music industry through contemporary research, case studies, and trends. Survey of developing and emerging markets; regional marketing and moving beyond U.S.-based thinking; multi-national approaches to career building. Special topics may include international standards for linguistic issues including publishing, censoring, and dubbing. Letter grading.

130. Music Industry. (4) Seminar, three hours. Recommended prerequisite or corequisite: Musicology 13. Do it yourself (DIY) as a practical alternative mode of organization for social justice activism and nonprofit arts collectives. Ethical issues in capitalism, labor issues, politics. How to work with gender, class, race, and orientation. Students interface with existing radical social justice/art organizations in Los Angeles area, and strive to facilitate real change. Letter grading.

132. Music and Activism. (4) Seminar, three hours. Outside study, nine hours. History and practice of music in and as activism. Artist-run labels and collectives, social justice organizing and media, art and activism in both entrepreneurial and non-profit settings. Students develop and execute music-related business plan with social awareness and potential for measurable impact. P/NP or letter grading.

134. Psycholgy and Music Management. (4) Seminar, three hours. Theoretical and sociological approaches to management of artist, fame, and music management, including effects of fame, addiction, fandom, and managing legacies. Focus on careers of significant musical artists according to instructor specialty. Letter grading.

136. Music Journalism. (4) Seminar, three hours. Limited to senior Music Industry majors. Preparation, creation, and presentation of senior capstone project. Letter grading. 187A. Developing Project/Connections. 187B. Seminar, three hours. Limited to students in Music Industry for undergraduate students interested in working in music industry for undergraduate students interested in career opportunities in the music and entertainment industries. May be repeated for credit with topic change. Letter grading.

188. Special Courses in Music Industry. (4) Seminar, four hours; outside study, eight hours. Special topics in various aspects of music and music industry for undergraduate students interested in exploring on experimental or temporary basis. May be repeated for credit with topic change. Letter grading.

189. Advanced Honors Seminars. (4) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students who meet the content noted on transcript. P/NP or letter grading.

195. Community or Corporate Internships in Music Industry and Technology. (4) Tutorial, eight hours. Preference given to juniors/seniors in Music Industry minor with minimum cumulative 3.0 grade-point average. Internship in supervised setting in community agency or private business. Students meet on regular basis with instructor and provide periodic reports of their experience. May be repeated for a maximum of 8 units. Individual contract with supervising faculty member required. P/NP grading.

195CE. Community and Corporate Internships in Music Industry. (4) Tutorial, to be arranged; fieldwork, eight to 10 hours. Limited to juniors/seniors. Internship in corporate, governmental, or nonprofit setting coordinated through Center for Community Engagement. Students complete weekly written assignments, attend biweekly meetings with graduate student instructor, and write final research paper. Faculty mentor and graduate student instructor construct series of readings assignments that examine issues related to internship site. May be repeated for credit with consent of Center for Community Engagement. No more than 8 units may be applied toward major. May not be applied toward concentration or distribution requirements. Individual contract with supervising faculty member required. P/NP or letter grading.

196. Directed Mentorships in Music Industry. (2 or 4) Tutorial, one hour. Limited to senior Music Industry majors with minimum cumulative 3.0 grade-point average. Supervised individual research under guidance of faculty and industry mentoring team. Culminating industry project required. May be repeated for a maximum of 8 units. Individual contract required. P/NP or letter grading.

M176. Music and Capitalism in West. (4) Same as Ethnomusicology M176.) Lecture, four hours. Follows history of western capitalism and how it has shaped the music industry and listening to present time. P/NP or letter grading.

M181. Forensic Musicology. (4) Formerly numbered 181.) (Same as Musicology CM181.) Seminar, three hours. Survey of critical issues and recent developments in forensic musicology and application of musical analysis to law of music copyright. Instructors include professionals in music industry. Focus on fundamentals of music analysis and copyright law, review of key music copyright infringement cases from basic musical and legal and musico-sociological perspectives, outlining of procedural aspects of copyright case, and defining of working relationship between attorney and musicologist. Letter grading.

M182. Music Industry. (4) Same as Ethnomusicology CM182, Music CM182, and Musicology CM186.) Lecture, four hours; discussion, one hour; outside study, seven hours. Limited to Ethnomusicology, Music, and Musicology majors. Examination of influence of music industry on way music is created, performed, listened to, evaluated, and used today. Historical approach taken, beginning with music publishing in 18th century and continuing through development of audio recordings to MTV and popular music today. Letter grading.


189. Advanced Honors Seminars. (4) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students who meet the content noted on transcript. P/NP or letter grading.

195. Community or Corporate Internships in Music Industry and Technology. (4) Tutorial, eight hours. Preference given to juniors/seniors in Music Industry minor with minimum cumulative 3.0 grade-point average. Internship in supervised setting in community agency or private business. Students meet on regular basis with instructor and provide periodic reports of their experience. May be repeated for a maximum of 8 units. Individual contract with supervising faculty member required. P/NP grading.

195CE. Community and Corporate Internships in Music Industry. (4) Tutorial, to be arranged; fieldwork, eight to 10 hours. Limited to juniors/seniors. Internship in corporate, governmental, or nonprofit setting coordinated through Center for Community Engagement. Students complete weekly written assignments, attend biweekly meetings with graduate student instructor, and write final research paper. Faculty mentor and graduate student instructor construct series of readings assignments that examine issues related to internship site. May be repeated for credit with consent of Center for Community Engagement. No more than 8 units may be applied toward major. May not be applied toward concentration or distribution requirements. Individual contract with supervising faculty member required. P/NP or letter grading.

196. Directed Mentorships in Music Industry. (2 or 4) Tutorial, one hour. Limited to senior Music Industry majors with minimum cumulative 3.0 grade-point average. Supervised individual research under guidance of faculty and industry mentoring team. Culminating industry project required. May be repeated for a maximum of 8 units. Individual contract required. P/NP or letter grading.

197. Individual Studies in Music Industry and Technology. (2 or 4) Tutorial, six to 12 hours. Limited to juniors/seniors in Music Industry minor with minimum cumulative 3.0 grade-point average. Individual intensive study in music industry and technology, with scheduled meetings to be arranged between faculty member and student. Tangible evidence of mastery of subject matter resulting in research project/paper required. May be repeated for a maximum of 6 units. Individual contract with supervising faculty member required. Letter grading.

Musicology / 679

Musicology

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Marylin D. Winkle, DMA

Academic Administrator

Holley Reploge-Wong, PhD

Overview

The Department of Musicology curricula allow students to gain a broad understanding of the history and culture of music, as well as a practical introduction to issues and skills relevant to the music and entertainment industries. Courses cover virtually every period, style, and genre, including jazz and other popular musics. The department is aligned with the departments of Ethnomusicology and Music and, shares curriculum with the free-standing minor in Music Industry. It aspires to promote produc-
tive collaboration between performance and scholarship, a cross-cultural global understanding of the art of music, and preparatory training for a broad range of careers in music and the music industry after students graduate.

**Undergraduate Majors**

**Musicology BA**

The BA in Musicology appeals to undergraduate students with musical backgrounds whose interests and principal career goals lie in areas other than professional performance. This undergraduate program prepares students for graduate programs in music and related fields and offers training within the broader context of the humanities.

**Capstone Major**

The Musicology major is a designated capstone major. Undergraduate students must complete a senior thesis that demonstrates the skills and expertise they have acquired in earlier coursework. Students are expected to conceive and execute a project that identifies and engages with a problem within a specialized topic, identify and analyze appropriate primary sources both textual and musical, and have a working knowledge of scholarly discourse relative to a specialized topic. While an extended essay is the default expectation for a completed project, students are encouraged to seek alternative formats, such as a lecture-recital, business or marketing plans, set of lesson plans, website, studio sound recording, or video/audio presentation. Students discuss and critique the work of their peers and present their work to other students and, if they choose, to the public as part of a student-organized live event and conference.

**Learning Outcomes**

The Musicology major has the following learning outcomes:

- Demonstrated specific skills and expertise, including research, analysis, writing, and general knowledge of music and music history
- Identification and analysis of appropriate primary sources and musical scores
- Conception and execution of a project that proposes and supports an original argument about a specialized topic
- Working knowledge of scholarly discourse relative to a specialized topic
- Engagement with peers through presentation, discussion, and critique of student work

**Entry to the Major**

**Admission**

The Musicology program assumes that students have some musical background before entering UCLA. Although auditions are not required, prospective majors should be sufficiently competent on an instrument or in voice to participate in a performance group, as required by the program.

**Transfer Students**

Transfer applicants to the Musicology major with 90 or more units should complete one year of music theory and musicianship prior to admission to UCLA. Experience in music performance is strongly recommended. Transfer students are required to take Musicology 12W at UCLA.

Refer to the [UCLA transfer admission guide](#) for up-to-date information regarding transfer selection for admission.

**Requirements**

**Preparation for the Major**

**Required:** Musicology 1, M6A, M6B, M6C, 12W, Music 20A, 20B, 20C, and 6 units total of performance organizations selected from Ethnomusicology 68A through 68O, 91A through 91Z, 168A through 168O, Global Jazz Studies 176A through 176H, Music 157A through 157C, 185A through 185H, Musicology CM90T, or Music Industry 111A; one lower-division humanities elective (minimum of 4 units).

**The Major**

**Required:** Musicology 125A, 125B, 125C, 126, 127, 128 (in a given year, the department may designate individual Musicology seminars in the range 160-185, 188, or 191 as equivalent to 126 and 127); one additional upper-division ethnomusicology, global jazz studies, music, or music industry seminar elective course (minimum of 4 units); and the department capstone sequence, Musicology 187A, 187B, 187C.

**Policies**

**Preparation for the Major**

Enrollment in Musicology M6A, M6B, M6C and Music 20A, 20B, 20C requires taking the Music Theory Placement Examination administered by the Music Department during New Student Sessions or week 0. Students who do not pass the examination are required to take Music 3 prior to taking Music 20A.

**The Major**

Each course applied toward the major must be taken for a letter grade (courses offered only on a P/NP grading basis are acceptable).

**Music History and Industry BA**

The BA in Music History and Industry is not a technical or business degree; it is a liberal arts degree in musicology whose subject is the music industry, combining the focus on music as an art form with practical training and experiential learning based in the music industry. It includes courses that help students develop their skills in popular music creation and production as well as practical skills appropriate to the fiscal, entrepreneurial, and legal needs of the contemporary music world. A required internship in the Los Angeles music industry is a distinctive feature.

**Capstone Major**

The Music History and Industry major is a designated capstone major. Undergraduate students must complete a senior thesis that demonstrates the skills and expertise they have acquired in earlier coursework. Students are expected to conceive and execute a project that (a) identifies an issue, problem, or opportunity in the music industry and engages with it practically and critically, or (b) brings to fruition a substantial creative project in contemporary music with tangible results. While an extended essay is the default expectation for a completed project, students are encouraged to seek alternative formats, such as a lecture-recital, business or marketing plans, set of lesson plans, website, studio sound recording, or video/audio presentation. Students discuss and critique the work of their peers and present their work to other students and, if they choose, to the public as part of a student-organized live event and conference.

**Learning Outcomes**

The Music History and Industry major has the following learning outcomes:

- Development of basic musicianship and music literacy and fluency in music theory to accurately and efficiently communicate about musical concepts across multiple repertoires in popular music; basic competence with music technology
- Demonstrated general knowledge of the histories and repertories of Western European and US—American traditional, popular, and classical musics, as well as the influence of other world traditions
- Engagement with live ensemble performance in at least one area of music
- Working knowledge of scholarly and critical discourse relative to music history and the music industry
- Conception and execution of project that proposes and supports an original argument about a specialized topic or addresses a specific cultural question or presents and analyzes a case study of actual practice in the music industry
- Engagement with peers through presentation, discussion, and critique of their work
- Demonstrated basic understanding of how culture is theorized and interpreted, and the ability to place musical experiences and structures in rich cultural contexts, and to link music with social justice, diversity, and equity goals
- Demonstrated basic economic literacy and basic understanding of the economic and legal organization of creative industries
- Ability to find, evaluate, and apply high-quality data to support executive and entrepreneurial decisions
- Experiential learning in real-world corporate, creative, or entrepreneurial situations with written report

**Entry to the Major**

**Admission**

The Music History and Industry major assumes that students have some musical background before entering UCLA, although Western art music is not privileged. Auditions are not required, but prospective majors should be sufficiently competent on an instrument, in produc-
tion, or in voice to participate in a performance group, as required by the program.

Transfer Students
Transfer applicants to the Music History and Industry major with 90 or more units should complete one year of music theory and musicology prior to admission to UCLA. Experiencing in group music performance (any genre) is strongly recommended. Transfer students are required to take Musicology 12W at UCLA. Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major
Required: Music 20A, 20B, 20C; Musicology 1, M6A, M6B, M6C, 12W; and 4 units total of performance organizations selected from Ethnomusicology 68A through 68O, 91A through 91Z, 161A through 161Z, Global Jazz Studies 176A through 176H, Music 175A through 175G, 185A through 185H, Musicology 111A; one lower-division musicology or music industry elective (minimum of 4 units).

The Major
Required: Musicology 125A, 125B, 125C, 128, Music Industry 101, 2 or 112A, 112B, 195 or 195CE, two additional upper-division music industry elective courses; and the Music History and Industry capstone sequence, Musicology 187A, 187B, 187C.

Policies

Preparation for the Major
Enrollment in Music 20A, 20B, 20C, and Musicology M6A, M6B, M6C requires taking the Music Theory Placement Examination administered by the Music Department or an equivalent assessment administered by the Musicology Department during New Student Sessions or week 0. Students who do not pass the examination are required to take Music 3 prior to taking Music 20A.

The Major
Each course applied toward the major must be taken for a letter grade (courses offered only on a P/NP grading basis are acceptable).

Undergraduate Minor
Musicology Minor
The Musicology minor provides undergraduates with an overview of music history and the study of music. Students may select from a wide variety of undergraduate courses that range through the history of European and American music.

Admission
To enter the minor, students must have an overall grade-point average of 2.0 or better and complete the Musicology minor application. For more information, see the minor website.

The Minor
Required Lower-Division Courses (14 units):
Musicology 1 and two lower-division musicology courses (minimum of 10 units total) with grades of C or better.
Required Upper-Division Courses (20 units):
Two upper-division musicology seminar courses (minimum of 8 units total), and three additional upper-division ethnomusicology, global jazz studies, musicology, or music industry courses (minimum of 12 units total).

Policies
Enrollment in some courses may be limited; check with the department or instructor.
A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.
Each minor course must be taken for a letter grade (courses offered only on a P/NP grading basis are acceptable), and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Major
Musicology MA, CPhil, PhD
The graduate program in Musicology offers courses leading to the MA and PhD degrees. It is designed to equip students to pursue careers not only in teaching but also in other areas that require bibliographical skills and training in research methodologies. The department offers teaching and research assistantships each year for qualified students.

Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in departmental handbooks, other publications, and websites of the schools, departments, and programs.

Musicology
Lower-Division Courses
1. Issues and Methods in Musicology. (4) (Formerly numbered 101.) Seminar, three hours. Introduction for Musicology majors and minors to practical aspects and fundamental issues of musicology as academic discipline. How musicologists go about establishing, editing, performing, analyzing, and interpreting musical texts. Exposure to kinds of activities, philosophies, and styles of scholarship that continue to shape the field of musicology. Letter grading.
M3. Introduction to Classical Music. (5) (Formerly numbered Musicology 3.) (Same as Music M14.) Lecture, four hours; discussion, one hour. Survey of music of Western classical tradition, with emphasis on historical context, musical meanings, and creation of tradition itself. P/NP or letter grading.
5. History of Rock and Roll. (5) Lecture, four hours; discussion, one hour. Analysis of forms, practices, and meanings of rock and roll music, broadly conceived, from its origin to present. Emphasis on how this music has reflected and influenced changes in sexual, racial, and class identities and attitudes. Credit for both courses 5 and 185 not allowed. Letter grading.
M6A-M6B-M6C. Introduction to Musicianisms. (2–2–2) (Same as Ethnomusicology M6A-M6B-M6C and Music M6A-M6B-M6C.) Laboratory, four hours. Preparation: placement examination. Course M6A is enforced requisite to M6B, which is enforced requisite to M6C. Students must receive grade of C– or better to proceed to next course in sequence. Introduction to musicianship through in-depth exploration of basic common musical elements and training in aural recognition, sight singing, dictation, and keyboard skills. Focus on topics such as tonal and modal harmony, rhythm, improvisation, composition, notation, and ear training to prepare students for later theory courses, participation in music ensembles, advanced study in music, and professional careers. Letter grading.
7. Film and Music. (5) Lecture, four hours; discussion, one hour. History of music and cinema, particularly ways music is used to produce meanings in conjunction with visual image. Credit for both courses 7 and 177 not allowed. P/NP or letter grading.
8. History of Electronic Dance Music. (5) Lecture, four hours; discussion, one hour. Survey of groove-based electrified dance music from its origins in 1960s psychology and soul to present day. House, techno, ambient, rave, and jungle. Emphasis on interaction of technology, musical structures, psychoactive drugs, and club culture to induce altered states of musical consciousness; promise (versus reality) of political and spiritual transformation; electronic dance music as new art music. P/NP or letter grading.
9. American Popular Song. (5) Lecture, four hours; discussion, one hour. American popular music before advent of rock and roll in 1950s, with special emphasis on song tradition of Tin Pan Alley, P/NP or letter grading.
12W. Writing about Music. (5) Lecture, four hours; laboratory, one hour. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Emphasis on learning specific skills, incorporating technical description, historical contextualization, subjective reaction, and certain stylistic conventions necessary in writing about music. Satisfies Writing II requirement. Letter grading.
13. Punk: Music, History, Subculture. (5) Lecture, four hours; discussion, one hour. Developments in punk music in their historical and subcultural contexts. Survey of punk and musical antecedents in 1960s, rise of punk in 1970s, and tracing of its expressive trajectories to present day. P/NP or letter grading.
19. Flat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP or letter grading.
28A. Medieval Period; 28B. Renaissance Period; 28C. 17th and 18th Centuries.
35. Introduction to Opera. (5) Lecture, four hours; discussion, one hour. Exploration of history of opera from its origins in Florentine Camerata in Italy in early 17th century, through heyday of Enlightenment and Romanticism, and ending with modern era of early 20th century. History of opera, biography of composers and singers, operatic conventions, dramaturgy, plot, staging, and musical style, with focus on learning appreciation of music of opera within rich context of its compelling history. P/NP or letter grading.
60. American Musical. (5) Lecture, four hours; discussion, 90 minutes. Survey of American musical in 20th century, beginning with its roots in operetta, vaudeville, and Gilbert and Sullivan, and focusing on its connections to politics, technology, film, opera, and variety of popular musical styles, including Tin Pan Alley, jazz, and rock. Credit for both courses 60 and 160 not allowed. P/NP or letter grading.
61. Music in Los Angeles. (5) Lecture, four hours; discussion, one hour. Exploration of history of music in Los Angeles. From Spanish missions and history of Los Angeles to emphasis on music in the 21st century, with special focus on European émigrés, inter­ national and postwar history of Japanese American community, Chicano and Mexican American music to present, African American traditions including jazz on Central Avenue, 1940s Doors, Motown Records, Stax, and other rhythm and blues, funk, and soul music cen­ ters of production. Lectures. Letter or P/NP grading.

62. Mozart. (5) Lecture, four hours; discussion, one hour. Designed for students who do not read music. Life, works, and mythology of Wolfgang Amadeus Mo­ zart, in context of both his age and our own. Credit for both courses 62 and 162 not allowed. P/NP or letter grading.

63. Bach. (5) Lecture, four hours; discussion, one hour. Designed for undergraduate students. Life and works of Johann Sebastian Bach. Credit for both courses 63 and 163 not allowed. P/NP or letter grading.

64. Motown and Soul: African American Popular Music of 1960s. (5) Lecture, four hours; discussion, one hour. Survey of development in post-World War II African American popular music, with special attention to musical developments in Motown Records, Stax, and other rhythm and blues, funk, and soul music cen­ ters of production. Lectures. Letter or P/NP grading.

65. Blues in American Music. (5) Lecture, four hours; discussion, one hour. History of blues, both as specific genre and as range of techniques and approaches that have been central to American music and culture, from 19th-century roots to present. Exploration of commonly accepted blues mainstream exemplified by figures like Bessie Smith, Robert Johnson, and B.B. King, but also central role blues has played in jazz, folk, country, gospel, rock, soul, and rap. Following evolution of music through 20th century, ex­ amination of how blues has served as metaphor for African American culture as it permeates American traditions. Credit for both courses 65 and 165 not allowed. P/NP or letter grading.

66. Getting Medieval. (5) Lecture, four hours; discussion, one hour. Exploration of ideas of medievalism in music and culture from film to video games. Course cov­ ered includes film scores, opera, Gregorian chant, early music revival, folk songs, progressive rock, and Goth. Credit for both courses 66 and 166 not allowed. Letter grading.

67. Popular Jewish and Israeli Music. (5) (Same as Jewish Studies M67.) Lecture, four hours; discussion, one hour. Music of Jews is diverse. With history of several thousand years and series of developments in modernity, music in Jewish life covers variety of styles found in many contexts. Exploration of music of Jews within last 100 years, with focus on popular music of Jews in America and Israel. Examination of music in Israel, with focus on song, and last Israeli, Israeli rock, and Muzika Mizrahit (Middle Eastern popular music). P/NP or letter grading.

68. Beatles. (5) Lecture, four hours; discussion, one hour. Examination of life and music of Beatles within social and historical context of 1960s. Credit for both courses 68 and 168 not allowed. P/NP or letter grading.

69. Music and Politics. (5) Lecture, four hours; discussion, one hour. Exploration of democratic and authoritarian pro­ cesses of various ways in which music is informed by and in­ forms politics. From individual performances to mass demon­ strations, music is recognizable as a political act and tool that is not simply representative, but also constitutive, meaning that music creates belief sys­ tems (politics). Exploration of development and use of music by social movements, political parties, and nations, and its function to both reflect and create the world around us and sounds that compose its futures. P/NP or letter grading.

70. Beethoven. (5) Lecture, four hours; discussion, one hour. Designed for undergraduate students. Life and works of Ludwig van Beethoven. Credit for both courses 70 and 170 not allowed. P/NP or letter grading.

71. Listening. (5) Lecture, four hours; discussion, one hour. Introduction to humanistic study of listening, as perceptual modality for engaging others and world, with focus on exploration of theories, ethics, and politics of listening. Hearing is shared perceptive faculty among able-bodied people, but listening practices are shaped by history, society, and culture. Hearing people listen differently depending on when, where, and how they live, as well as who they are as individu­ als, P/NP or letter grading.

72. Sacred Music. (5) Lecture, four hours; discussion, one hour. Study of forms and liturgies of Western church music. Credit for both courses 72 and 172 not allowed. P/NP or letter grading.

73. Music and Religion in Popular Culture. (5) (Same as Ethnomusicology M73.) Lecture, four hours; discussion, one hour. Survey of popular music in reli­ gious traditions since the 1970s. Growth of music in Jewish denominations, including Orthodox, Reform, and Conservative, and Christian contemporary music, from evangelical to cross-over artists performing in mainstream pop. M73 and M173 not allowed. P/NP or letter grading.

74. History of Jazz. (5) Lecture, four hours; discussion, one hour. History and analysis of variety of jazz styles. Focus on late 20th century to present, with emphasis on social meanings of musical prac­ tices. Letter grading.

75. Dancehall, Rap, Reggaeton: Beats, Rhymes, and Routes in African Diaspora. (5) Lecture, four hours; discussion, one hour. Analysis of histories of three closely connected music genres: Jamaican dancehall, U.S. rap, and Puerto Rican/Panamanian reggaeton. Introduction to major performers in each genre, compar­ isons of stylistic traits with each music, and exploration of technologies associated with con­ temporary music production. P/NP or letter grading.

76. Jewish American Experience through Music. (5) (Same as Ethnomusicology M80 and Jewish Studies M80.) Lecture, four hours; discussion, one hour. In synagogue and on stage, and from LP record­ ings to YouTube, Jews in America have varied musical experiences. Music of synagogue, celebrations at home, in community, and in all interesting de­ velopments of Jewish music. New Opportunities in entertainment industry brought new possibilities for Jews in popular music, rock, and film scores. Explora­ tion of various ways corresponding and adapting to their American context and becoming American through music. Exploration of different music genres and the role they play by guest composers and performers. Letter grading.

77. Music and Holocaust: Individual Experience. (5) (Same as Jewish Studies M82.) Lecture, three hours; discussion, one hour. Roles of music during Holocaust are as varied as people who experienced it. Music was composed and performed by prisoners in almost every concentration camp; music was means for some individuals to gain favorable treatment, while others weaponized it. Traces development of Euro­ pean musical culture under Nazi regime (1933–45), fo­ cusing on how individuals interacted with music throughout Holocaust. Study of some of newest de­ velopments in Holocaust music research, including role American and European non-governmental orga­ nizations played in creation of artistic hubs in campus of southern France. Exploration also of cultural repre­ sentations of Holocaust and role of music in society’s collective memory. Letter grading.

78. Sophomore Seminars: Music History. (2) Sem­ inar, two hours. Designed for sophomore Musicology majors or students interested in pursuing Musicology major. Topics may include introduction to academic dis­ cipline, with particular emphasis on musicology at UCLA. Study of music and its history and consider­ ation of theoretical issues central to musicology as it is practiced current day. Reading assignments, written assignments, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract re­ quired. Honors content noted on transcript. Letter grading.

79. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjacent to lower-divi­ sion lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible stu­ dents. Honors content noted on transcript. P/NP or letter grading.

80. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. De­ signed as adjacent to lower-division lecture course. In­ dividual study with lecture course instructor to explore topics in greater depth through supplemental read­ ings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract re­ quired. Honors content noted on transcript. Letter grading.

81. CM100T. Early Music Ensemble. (4) (Same as Music M90T) Activity, four hours. Preparation: audition. Group performance of Western vocal and instrumental music from historical periods prior to 1800. Early in­ struments may be used at instructor’s discretion. May be repeated for credit without limitation. May be con­ currently scheduled with course C490T. P/NP or letter grading.

82. Music and Internet. (5) Lecture, four hours; dis­ cussion, one hour. Survey of changes undergone by music in digital environment. As music becomes in­ creasingly pervasive—found everywhere, yet living no­ where—in the digital context, where creative freedoms and disinterest are equally apparent? What does In­ ternet sound like? P/NP or letter grading.

83. Student Research Program. (1 to 2) (1 to 2) Supervised research or other scholarly work, three hours per week per unit. Exploration of multi-disci­ plinary students under guidance of faculty mentor. Stu­ dents must be in good academic standing and en­ rolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

**Upper-Division Courses**

M103. Creating Musical Community. (4) (Same as Ethnomusicology M103, Global Jazz Studies M103, and Music M103.) Seminar, four hours; discussion, one hour. Limited to school of music majors. Faculty and students make music together in various modes. Students learn certain repertoire, refine it, and bring it to concert performance. Students critically engage musical literacies and non-musical content that forms basis of musical notation. Drawing from Amer­ ican music folk game traditions, highlights complex history of this country and way in which entire body is used as resource when instruments are unavailable. Letter grading.

M112. Disability and Musical-Dramatic Arts: Repre­ sentation, Embodiment, Themes, and Practices. (5) (Same as Disability Studies M112.) Lecture, four hours; discussion, one hour. Exploration of ways dis­ ability and impairment factor into musical and mus­ ical-dramatic creation and performance, considered historically and aspirationally in terms of representa­ tion, embodiment, themes, and developing prac­ tices. P/NP or letter grading.

M113. Variable Topics on Music and Disability. (4) (Same as Disability Studies M113.) Seminar, four hours. Analysis and critique of depiction of disability and music. Topics may include introduction to dis­ ability studies; exploring work and creative strategies of disabled musicians; music technologies and instru­ ment design; representation of disability in music; and others. May be repeated with topic or in­ structor change. P/NP or letter grading.

M125A. Music, History, and Culture: Era of Church and Patron. (5) Lecture, four hours; discussion, one hour. Requisite: course M6A (may be taken concur­ rently). Course 125A is required. Requisite 125 is req­ uisite to 125C. Students must receive grade of C or better to proceed to next course in sequence. Intro­ duction to history, culture, and structure of Western
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Music, in era of church and court patronage, through selected topics, repertoires, and analytical techniques. Letter grading.

125B. Music, History, and Culture: Era of Empires and Marketplaces. (5) Lecture; four hours discussion, one hour. Requisite: course M68 (may be taken concurrently). 125A. Course 125A is requisite to 125B, which is requisite to 125C. Students must receive grade of C or better to proceed to next course in sequence. Introduction to history, culture, and structure of Western music, in era of empires and marketplaces, through selected topics, repertoires, and analytical techniques. Letter grading.

125C. Music, History, and Culture: Modern and Postmodern Era. (5) Lecture; four hours; discussion, one hour. Requisite: course M6C (may be taken concurrently). 125B. Course 125B is requisite to 125B, which is requisite to 125C. Students must receive grade of C or better to proceed to next course in sequence. Introduction to history, culture, and structure of Western music, in modern and postmodern eras, through selected topics, repertoires, and analytical techniques. Letter grading.

126. Musics, Cultures, and Their Interpretation. (5) Lecture; four hours; discussion, one hour. Requisite or corequisite: M6A. Designed to supplement broad historical and analytical knowledge and critical thinking by focusing on interlocking questions of how cultures make music, and how music makes cultures. Letter grading.

127. Music, Sound, and Structure. (5) Lecture, four hours; discussion, one hour. Requisite or corequisite: M6A. Designed to supplement broad historical survey in Musicology 125 series by focusing on interlocking questions of musical structure and meaning. Letter grading.

128. History of Popular Music. (5) Lecture; four hours; discussion, one hour. Requisite or corequisite: M6A. Introduction to study of popular music through American history, with emphasis on music of Americas, Afro-diasporic music, and socioeconomic structure of music making in industrial society. Letter grading.


M136. Music and Gender. (5) Same as Gender Studies M136.) Lecture; four hours; discussion, one hour. Analysis of gender ideologies in several musical cultures; representations of gender, body, and sexuality by both male and female musicians; contributions of women to Western art and popular musics; methods of gender and gay/lesbian theory and criticism. Letter grading.

M137. Lesbian, Gay, Bisexual, Transgender, and Queer Perspectives in Pop Music. (5) Same as Lesbian, Gay, Bisexual, Transgender, and Queer Studies M137.) Lecture; four hours; discussion, one hour. Survey of English-language popular music in 20th century, with focus on lesbians, gay men, and members of other sexual minorities as creators, performers, and performers. Letter grading.

140. Music, Media, and Consumer Society. (4) Lecture, four hours. Consideration of impact of recording technologies (gramophone, tape recorder, Walkman, sampler); broadcast media (radio, television, MTV, Internet); digital recording (record label bidding, advertising, Muzak) on way we consume and are consumed by music. How music functions and malfunctions on record, under movies, behind ads, and in semiotic fabric of everyday life. Letter grading.

165. Blues and Individual Expression. (5) Seminar, two hours. Enforced corequisite: attendance, but not enrollment, in course 65 lecture. Intensive discussion in seminar setting of selected topics associated with credit for both courses 66 and 166 not allowed. Letter grading.

166. Medievalism and Music History. (5) Seminar, two hours. Enforced corequisite: attendance, but not enrollment, in course 66 lecture. Exploration of ways in which specific approaches and attitudes to past shape music history, composition, and performance, with special focus on folk music and early music renaissance. Credit for both courses 66 and 166 not allowed. Letter grading.

170. Beethoven: Study of Selected Works. (5) Seminar, 90 minutes. Corequisite: attendance, but not enrollment, in course 70 lecture. Designed to meet needs of students who read music and wish to examine Beethoven’s music in greater depth. Credit for both courses 70 and 170 not allowed. Letter grading.

172. Selected Topics in Sacred Music. (5) Seminar, two hours. Enforced corequisite: attendance, but not enrollment, in course 72 lecture. Introduction to some ways that music, within the religious service, is used to construct a sense of sacredness, of the sacred, and the sacred. Letter grading.


177. Selected Topics in Film and Music. Seminar, two hours. Enforced corequisite: attendance, but not enrollment, in course 77 lecture. In-depth analysis of issues in commercial and critical aspects of music in film. Credit for both courses 77 and M177 not allowed. Letter grading.

CM181. Forensic Musicology. (4) Same as Music Industry M181.) Seminar, three hours. Survey of critical issues and recent developments in field of forensic musicology—how to analyze and authenticate law of music copyright. Instructors include professionals in music industry. Study of fundamentals of music analysis and copyright law, review of current law in music copyright infringement cases from both legal and musicological perspectives, outlining of procedural aspects of copyright, and defining of working relationship between attorney and musicologist. Concurrently scheduled with course C281. Letter grading.


185. Selected Topics in Rock and Roll. (5) Seminar, two hours. Enforced corequisite: attendance, but not enrollment, in course 5 lecture. Intensive discussion in seminar setting of selected topics in rock and roll. Credit for both courses 5 and 185 not allowed. Letter grading.

CM186. Music Industry. (4) Same as Ethnomusicology CM182, Music CM182, and Music Industry M182.) Lecture; four hours; discussion, one hour; outside study, seven hours. Limited to Ethnomusicology, Music, and Musicology majors. Examination of influences of music industry on way music is created, performed, listened to, evaluated, and used today. Historical approach taken, beginning with music published in 18th century and continuing through development of recordings, radio, television, and music today. Concurrently scheduled with course CM288. Letter grading.


188. Special Courses in Music History. (4) Lecture, four hours. Special topics in music history for undergraduate students taught on temporary basis. Consult Schedule of Classes for topics and instructors. May be repeated for credit. P/NP or letter grading.

188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to develop USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SB. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: course 188SA. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to finalize course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced corequisite: course 188SB. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE 88S course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grade.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designated as adjunct to upper-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by faculty mentor. May be applied toward honors credit for eligible students. Honors content noted on transcript. Letter grading.
Graduate Courses

200A. Introduction to Music Scholarship. (6) Seminar, three hours. Designed for graduate musicology, ethnomusicology, and music students. Introduction to history and different methodologies (with strong focus on musicology) and to selected debates in those fields. Practical tools for research, logic and structure of arguments, evidence, critical thinking and critical theory, historiography, voice, and archival and ethnographic research. Introduction to practical written forms such as abstract, grant proposal, paper/book proposal, and review. Letter grading.

200B. Critical, Cultural, and Social Theory. (6) Seminar, three hours. Designed for graduate musicology, ethnomusicology, and music students. Introduction to issues surrounding music as social, cultural, and historical, with special emphasis on critical, cultural, and social theory. May include introduction to social theory, materialist theories of culture, postcolonialist, critical theory, or overview of cultural theory or of group of theories selected by instructor, including feminism, performance studies, sociology, cultural studies, musicology, urban studies, anthropology, philosophy, psychoanalysis, poststructuralism, gender, race, and sexuality studies, lesbian/gay/bisexual/transgender, and queer studies, disability studies, and so on. Introduction to set theory of body in relation to study of music. Letter grading.

200C. Music Industry, Economics, Analysis, and Philosophy. (6) Seminar, three hours. Designed for graduate musicology, ethnomusicology, and music students. Exploration of selected philosophical, aesthetic, and/or analytical perspectives of practices that give insight into selected analytical and philosophical approaches to phenomena of music and to acquire skills in analyzing and interpreting variety of repertoires. Letter grading.

M201. Repertory and Analysis. (2) Seminar, two hours. Requisite or corequisite: course 200A. Exploration of defined repertory through readings and analysis. Specific topics vary. May be repeated for credit. P/NP grading.

245. Seminar: Analytical/Repertoire Topics. (4) Seminar, three hours. Designed for graduate musicology students. Coverage of analytical topics that vary from year to year. May be repeated for credit. Meets with course 246; concurrent enrollment in both courses not allowed. Letter grading.

246. Seminar: Special Topics in Musicology. (4) Seminar, three hours. Exploration of topics in musicology through variety of approaches that may include historical, theoretical, or analytical approaches to subjects within musicology. Topics announced in advance. May be repeated for credit. Letter grading.

250. Seminar: Theoretical Topics. (4) Seminar, three hours. Designed for graduate musicology students. Coverage of theoretical topics that vary from year to year. May be repeated for credit. Meets with course 251; concurrent enrollment in both courses not allowed. Letter grading.

251. Audit Seminar: Theoretical Topics. (2) Seminar, three hours. Requisite or corequisite: course 200A. Specific topics vary from year to year. May not be applied toward MA or PhD degree requirements. May be repeated for credit. Meets with course 255; concurrent enrollment in both courses not allowed. S/U grading.

255. Seminar: Historical Topics. (4) Seminar, three hours. Designed for graduate musicology students. Coverage of historical topics that vary from year to year. May be repeated for credit. Meets with course 256; concurrent enrollment in both courses not allowed. Letter grading.

256. Seminar: Historical Topics. (2) Seminar, three hours. Requisite or corequisite: course 200A. Specific topics vary from year to year. May not be applied toward MA or PhD degree requirements. May be repeated for credit. Meets with course 255; concurrent enrollment in both courses not allowed. S/U grading.

259. Audit Seminar: Mapping Sonic Urban Geography of Los Angeles in 1940s. (2) Seminar, three hours. Limited to departmental graduate students and those in Urban Humanities Certificate Program. Exploration of methodologies and conceptual frameworks for mapping sonic urban geography of Los Angeles in 1940s. In-depth critical discussion of current theories of music and space and of most recently developed methodologies for undertaking ethnographic or anthropological study of sound, including recording and mapping soundscapes. May not be applied toward MA or PhD degree requirements. May be repeated for credit. Meets with course 256; concurrent enrollment in both courses not allowed. S/U grading.

260. Mapping Sonic Urban Geography of Los Angeles in 1940s. (4) Seminar, three hours. Limited to departmental graduate students and those in Urban Humanities Certificate Program. Exploration of methodologies and conceptual frameworks for mapping sonic urban geography of Los Angeles in 1940s. In-depth critical discussion of current theories of music and space and of most recently developed methodologies for undertaking ethnographic or anthropological study of sound, including recording and mapping soundscapes. May not be applied toward MA or PhD degree requirements. May be repeated for credit. Meets with course 260; concurrent enrollment in both courses not allowed. S/U grading.

261. Topics in Performance Practice. (4) Seminar, three hours. Designed for graduate students. Investigation of primary sources of performance practices across history of Western music; analytical reports and practical applications in class demonstrations. May be repeated for credit. Letter grading.

291. Forensic Musicology. (4) Seminar, three hours. Survey of critical issues and recent developments in field of forensic musicology—application of musical analysis to law of music copyright. Instructors include practitioners in music industry underpinning of music analysis and copyright law, review of key music copyright infringement cases from both legal and musicological perspectives, outlining of procedural aspects of copyright case, and defining of working relationship between attorney and musicologist. Concurrently scheduled with course CM181. Letter grading.

CM288. Music Industry. (4) Same as Ethnomusicology CM288 and Music CM282. Lecture, four hours; discussion, one hour; outside study, seven hours. Limited to Ethnomusicology, Music, and Musicology majors. Examination of influence of music industry on way music is created, performed, listened to, evaluated, and used today. Historical approach taken, beginning with music published in 19th century and continuing through development of audio recordings to MTV and popular music today. Concurrently scheduled with course CM186. Letter grading.

291. Teaching Western Musical Canon. (1) Seminar, three hours. Workshop series designed to prepare graduate musicology students to teach Western musical canon at undergraduate level. May be repeated for credit. S/U grading.

296. Research Topics in Musicology. (2 to 4) Seminar, two to four hours. Preparation: consultation with instructor. Designed for grad students in musicology. Specific topics vary from year to year. May be repeated for credit. S/U grading.

296. Research Topics in Ethnomusicology. (2 to 4) Seminar, two to four hours. Preparation: consultation with instructor. Designed for grad students in musicology. Specific topics vary from year to year. May be repeated for credit. S/U grading.
Undergraduate Study
College Program
(Nonscholarship)

Students attending UCLA who meet Navy/Marine Corps requirements but who do not have an NROTC scholarship may enroll in the College Program during their freshman or sophomore year. These students have the opportunity to compete for scholarships. If they do not win a scholarship, or choose not to compete for one, they must compete for advanced standing prior to their junior year. All College Program students receive uniforms, naval science textbooks and, once selected for advanced standing, monthly subsistence pay in their junior and senior years.

Marine Corps Option
Highly motivated NROTC students may request designation as Marine Corps option students and may also pursue any UCLA academic degree. The final summer training, and a requirement to be commissioned as an officer in the Marine Corps, involves intensive Marine training at Officer Candidate School in Quantico, Virginia. Marine Corps option students also participate, on a limited basis, in field training exercises during the academic year.

Naval Science
Lower-Division Courses

Z. Naval Science Laboratory. (No credit) Laboratory, to be arranged. Mandatory for and limited to Naval Science ROTC midshipmen. Provides midshipmen with general military training and practical command and staff leadership experiences through classroom instruction and performance of various tasks and interactive processes within framework of organized midshipmen-run military unit, with oversight by active-duty military staff. As integral part of naval science curriculum, provides professional experiences designed to develop leadership potential and orientation for active duty. No grading.

1A. Introduction to Naval Science. (3) Lecture, three hours. Introduction to organization of Naval Service, various components of Navy, career opportunities, shipboard damage control, fire fighting, Naval and Marine Corps operations, and some customs and traditions of Naval Service. Letter grading.

1B. Naval Ship Systems I. (4) Lecture, four hours. Introduction to naval engineering, with emphasis on steam, nuclear, diesel, and gas turbine propulsion systems and their associated auxiliary components. Basic thermodynamic theory, electrical theory, stability, and buoyancy. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

20A. Naval Ship Systems II. (4) Study of naval weapon systems, with emphasis on infrared, radar, and sonar principles. Target designation and acquisition, methods of solving fire control problem, target detection systems. Analysis of transfer and feedback functions inherent in weapon systems. P/NP or letter grading.

20B. Seapower and Maritime Affairs. (3) Lecture, three hours. Conceptual study of seapower, with emphasis on historical development of naval and commercial power. Seapower examined in relation to economic, political, and cultural strengths, with focus on current abilities of specific nations to use oceans to attain national objectives. P/NP or letter grading.

Naval Science – Naval ROTC / 685
Upper-Division Courses


102B. Naval Leadership and Management. (4) Lecture, four hours. Examination of current and classical leadership and management theories, with emphasis on their application to junior military officer’s role as a leader/manager. Topics include managerial functions, performance appraisal, motivation theories, group dynamics, leadership theories, and communication. P/NP or letter grading.

102C. Leadership and Ethics. (4) Lecture, four hours. Recommended requisite for Naval Science ROTC midshipmen: course 102B. Capstone and second of two core leadership courses that provide academic foundation of NROTC leadership development. Integration of intellectual exploration of Western moral traditions and ethical philosophy with military leadership, core values, professional ethics, Uniform Code of Military Justice, and Navy regulations. Provides midshipmen with basic understanding of major moral traditions, including relativism, utilitarianism, Kantian ethics, natural law theory, divine command theory, and virtue ethics. Letter grading.

103. Evolution of Warfare. (4) Study of evolution of warfare, including historical and comparative consideration of influence that leadership, political, economic, and sociological and technological development factors have had on warfare and influence they continue to exert in age of limited warfare.

104. Fundamentals of Maneuver Warfare. (4) Seminar, four hours. Study of fundamentals of maneuver warfare, with particular emphasis on doctrine, tactics, and equipment used. Examination of topics through study of political and military objectives by focusing on historical examples from Revolutionary War to modern times. Examination of contemporary doctrine through study of recent operations. Letter grading.

197. Individual Studies in Naval Science. (1 to 4) Tutorial, four hours. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Near Eastern Languages and Cultures

College of Letters and Science

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Sahba Shayani, PhD

Adjunct Professor
Ahmad Karimi-Hakkak, PhD

Adjunct Associate Professor
Hans Barnard, MD, PhD

Adjunct Assistant Professor
Ali Mousavi, PhD

Overview
The department offers instruction in the major modern and ancient languages of the Near East: Akkadian, ancient Egyptian, Arabic, Aramaic, Armenian, Berber, Coptic, Hebrew, Persian, and Turkic. To meet increasing demands for a knowledge of this area and its past and present, it treats each language in a wide perspective—as a means of communication, as a vehicle of a cultural heritage, as a research tool for the area, and as an object of research itself.

Mission
The mission of the department is the discovery, interpretation, dissemination, and preservation of human values created over a period of five or more thousand years in an area that was the cradle of all civilization.

Undergraduate Study
Undergraduate majors may be taken in Ancient Near East and Egyptology, Arabic, Iranian Studies, Jewish Studies, and Middle Eastern Studies. In each of these fields students must meet the requisites and take the courses prescribed. Their adviser assists in selecting a plan of study developed around their interests.

Students may combine their major with one in another department (double major) to enhance their educational opportunities. Due to the number of additional courses required, they are advised to consider this option early in their academic career and in consultation with program advisers in both majors.

Graduate Study
Master of Arts (MA) and Doctor of Philosophy (PhD) programs are offered in Ancient Near Eastern Civilizations, Arabic, Armenian, Hebrew, Iranian, Islamic Studies, Semitics, and Turkic.

Career Prospects
Courses in the department prepare students for careers in government, foreign trade, teaching abroad, journalism abroad, archaeology, and further academic work involving the area.
Undergraduate Majors

Ancient Near East and Egyptology BA

Study Abroad

Students are encouraged to spend time abroad either to (1) study with an education abroad program or (2) work on a UCLA-affiliated archeological excavation in the broader Middle East. For information on studying abroad, contact the Education Abroad Program, 1332 Murphy Hall, 310-825-4995; for UCLA-affiliated excavations, contact the departmental academic counselor at 310-825-4165.

Learning Outcomes

The Ancient Near East and Egyptology major has the following learning outcomes:

- Demonstrated mastery of the ancient Near East and its history
- Demonstrated skills and expertise, including research, analysis, and writing
- Identification, evaluation, and analysis of historical monuments, time periods, vocabulary, concepts, and historical figures

Entry to the Major

Transfer Students

Transfer applicants to the Ancient Near East and Egyptology major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one civilization course on Mesopotamia, Egypt, Near Eastern archaeology, or Middle Eastern cultures.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major


The Major

Students must complete 10 courses as follows:

Required Core Courses: One course selected from four of the following five areas (total of four courses):


History: Ancient Near East M103A through M104D, M110A, M110B, M110C, or Jewish Studies M182A.


Required Elective Courses: Any six courses (no more than three may be from Anthropology) selected from the categories above or from Ancient Near East 121A, 121B, 121C, C123A, C123B, 124, 125A, M125B, M125C, 175, C177, M179, Anthropology 110, CM110Q, 111, 112R, 130, M150, English 111A, 111B, 111C, Greek 130, Hebrew 125, 130, 135, 186FL, Study of Religion M186A, M186B, M186C, Semitics 130, 141, 142.

Policies

The Major

No more than two upper-division four-unit independent study or directed research courses (197, 198, 199) may be applied toward the major. Other courses, including extra-departmental courses, may be applied with consent of the adviser.

Iranian Studies BA

Students majoring in Iranian Studies may combine the major with specialization in other fields to enhance their career opportunities. Due to the number of additional courses required, they are advised to consider this option early in their academic career.

Learning Outcomes

The Iranian Studies major has the following learning outcomes:

- Demonstrated written and oral mastery of Persian language
- Demonstrated specific skills and expertise, including research, analysis, and writing
- Ability to read texts in Persian and analyze the language and cultural context
- Identification, evaluation, and analysis of historical monuments, periods in time, vocabulary, concepts, and historical figures

Entry to the Major

Transfer Students

Transfer applicants to the Iranian Studies major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of Persian.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major

Required: Iranian 1A, 1B, and 1C, or 20A, 20B, and 20C, or equivalent, and Iranian 55 or M60.

The Major

Policies

The Major
A maximum of two Iranian 197 or 199 courses (8 units total) may be applied toward the major.

Jewish Studies BA

Study Abroad
Students are encouraged to spend up to one year in Israel either to (1) study with an education abroad program or (2) study at an Israeli university. For information on studying in Israel, contact the Education Abroad Program, 1332 Murphy Hall, 310-825-4889.

Learning Outcomes
The Jewish Studies major has the following learning outcomes:

- Demonstrated written and oral mastery of the Hebrew language
- Demonstrated specific skills and expertise, including research, analysis, and writing
- Ability to read texts in Hebrew and analyze the language and cultural context
- Identification, evaluation, and analysis of historical monuments, periods in time, vocabulary, concepts, and historical figures

Entry to the Major

Transfer Students
Transfer applicants to the Jewish Studies major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one social, cultural, and religious institution of Judaism course.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major
Required: Jewish Studies M10, one course selected from Ancient Near East 10W, 12W, Jewish Studies M67, M80, M82, Middle Eastern Studies M50A, M50B, M50CW, and demonstrated proficiency equivalent to level 3 at UCLA in one foreign language (Arabic, Amharic, Hebrew) in consultation with the department.

The Major

Policies

The Major
Students are encouraged to take a research tutorial within Jewish Studies 197 or 199. A maximum of two 197 or 199 courses (8 units total) may be applied toward the major.

Middle Eastern Studies BA

Study Abroad
Students are encouraged to spend time abroad either to (1) study with an education abroad program or (2) work on a UCLA-affiliated archaeological excavation in the broader Middle East. For information on studying abroad, contact the Education Abroad Program, 1332 Murphy Hall, 310-825-4889; for UCLA-affiliated excavations, contact the departmental academic counselor at 310-825-4165.

Learning Outcomes
The Middle Eastern Studies major has the following learning outcomes:

- Demonstrated written and oral mastery of a Middle Eastern language
- Demonstrated specific skills and expertise, including research, analysis, and writing
- Identification, evaluation, and analysis of historical monuments, periods in time, vocabulary, concepts, and historical figures

Entry to the Major

Transfer Students
Transfer applicants to the Middle Eastern Studies major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of Arabic, Armenian, Hebrew, Persian, Turkish, or another language (Uzbek) 112A, 112B, 112C, Turkic Languages (Turkish) 102A, 102B, 102C, Turkic Languages (Uzbek) 112A, 112B, 112C, Turkic Languages (Azerbaijani) 116A, 116B, 116C.


Policies

The Major
Students may petition to substitute a core or elective course with a department independent study/directed research course (197, 198, or 199) as long as it covers a topic relevant to Middle Eastern studies. No more than two 197, 198, or 199 courses (8 to 10 units) may be applied toward the major.

Undergraduate Minors

Ancient Near East and Egyptology Minor
Admission
To enter the Ancient Near East and Egyptology minor, students must have an overall grade-point average of 2.0 or better and file a petition in 378 Kaplan Hall, 310-825-4165.
The Minor

Required Lower-Division Courses (10 units):

Required Upper-Division Core Courses (12 to 15 units):

Required Elective Courses (8 to 10 units):

Policies

A maximum of 4 graded units of special studies courses (197, 198, 199) approved by the advisor may be applied toward the minor. No course for the minor or preparation for the minor may be taken on a P/NP grading basis.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Armenian Studies Minor

The Armenian Studies minor is designed for students who wish to augment their major program with a group of courses that provide a systematic introduction to the study of Armenian culture.

Admission

To enter the minor, students must have an overall grade-point average of 2.0 or better and file a petition in 378 Kaplan Hall.

The Minor

Required Lower-Division Courses (15 units):
Arabic 1A, 1B, 1C, or equivalent.

Required Upper-Division Courses (20 units):
Five courses in Arabic or Islamic studies; 199 courses may not be applied. Courses recommended as electives for the major in Arabic (Anthropology M166Q, Art History 119A, 119B, C120, Comparative Literature 100, History 105A, 105B, 105C, M106, 108B, 111A, 111B, 111C, 130, Political Science 132A, M132B, 157, 165) may be applied.

Policies

With consent of the undergraduate adviser, two of the five courses may be taken outside the department. Other courses may be applied with consent of the adviser.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Hebrew and Jewish Studies Minor

Admission

To enter the Hebrew and Jewish Studies minor, students must have an overall grade-point average of 2.0 or better and file a petition in 378 Kaplan Hall.

The Minor

Required Lower-Division Courses (15 units):
Hebrew 1A, 1B, 1C, or 8, or equivalent.

Required Upper-Division Courses (20 units):
Five courses from the Hebrew or Jewish studies section of the department; 199 courses may not be applied. With consent of the undergraduate adviser and based on course content, two of the five courses may be taken outside the department.

Policies

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Iranian Studies Minor

Admission

To enter the Iranian Studies minor, students must have an overall grade-point average of 2.0 or better and file a petition in 378 Kaplan Hall.

The Minor

Required Lower-Division Courses (10 to 11 units):
Iranian 1C or 20C or equivalent and one course from Iranian 55 or M60.

Required Upper-Division Courses (20 to 23 units):

Policies

Course 199 may not be applied. With consent of the undergraduate adviser, two of the five courses may be taken outside the department. Ordinarily, the following courses may be applied: History 107A through 107E, Indo-European Studies M150.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Israel Studies Minor

The Israel Studies minor is designed for students interested in adding a particular focus on Israel to their major. Comprised of coursework that serves to create a broad introductory foundation of familiarity with Israeli history, society, politics, and culture, the minor is appropriate
Graduate Majors

Islamic Studies MA, CPhil, PhD

Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Near Eastern Languages and Cultures MA, CPhil, PhD

Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Ancient Near East

See Semitics for Akkadian, Aramaic, Phoenician, Syriac, and Ugaritic courses.

Lower-Division Courses

10W. Jerusalem: Holy City. (5) Lecture; three hours; discussion, one hour. Enforced requisite: English Composition 3. Not open for credit to students with credit for course 12W. Survey of religious, political, and cultural history of Jerusalem over three millennia as symbolic focus of three faiths: Judaism, Christianity, and Islam. Transformation of sacred space as reflected by literary and archaeological evidence through examination of testimony of artifacts, architecture, and iconography in relation to written word. Study of creation of mythic Jerusalem through event and experience. Satisfies Writing II requirement. Letter grading.

12W. Jerusalem: Holy City. (5) Seminar, four hours. Enforced requisite: English Composition 3. Not open for credit to students with credit for course 10W. Survey of religious, political, and cultural history of Jerusalem over three millennia as symbolic focus of three faiths: Judaism, Christianity, and Islam. Transformation of sacred space as reflected by literary and archaeological evidence through examination of testimony of artifacts, architecture, and iconography in relation to written word. Study of creation of mythic Jerusalem through event and experience. Development of advanced writing skills and critical thinking. Satisfies Writing II requirement. Letter grading.

14W. Medicine, Magic, and Science in Ancient Times. (5) Lecture; three hours; discussion, one hour. Requisite: English Composition 3. Overview of history of medicine and sciences, focusing especially on Ancient Near East, China, and Mesopotamia. Satisfies Writing II requirement. Letter grading.

15S. Women and Power in Ancient World. (5) Lecture; four hours; discussion, one hour. Not open for credit to students with credit for course 15W. Examination of how feminine power confronts masculine dominance within complex social systems in ancient world. To gain political power, some female rulers used their sexuality to gain access to important men. Other women gained their position as regents and helpers of masculine kings who were too young to rule. Others
to discipline of history that allow conceptualizing is- sues of diversity and othering in ancient world. P/NP or letter grading.

M60W. Achaemenid Civilization and Empire of Alex- ander. (Same as History M60W and Iranian M60W.) Lecture, three hours; discussion, one hour. Designed for juniors/seniors. Political and cultural institutions of ancient Egypt and ideas on which they were based. P/NP or letter grading. Consent of instructor required.

M610A. Art and Architecture of Ancient Egypt, New Kingdom to Greco-Roman Period. (See Art History M110A.) Lecture, three hours. Study of architecture, sculpture, painting, and minor arts during Pre-dynastic period and Old Kingdom. May be repeated for credit with consent of instructor. Concurrently scheduled with course C267B. P/NP or letter grading.

M70D. Demons, Fear, and Uncanny in Ancient World. (Same as Religion M70D.) Lecture, three hours; dis- cussion, one hour. Consideration of place of demons and fear in several different societies and cultures in ancient world: Mesopotamia; ancient Egypt, Greece, and Rome; and Biblical and early Jewish contexts. In- vestigation into why demons and monsters exist in these contexts; how they were conceptualized and protected against; and what different societies feared, and how that fear was represented. As demons and mon- sters are reflections of particular culturally specific fears and norms, studying them allows for examination of societies that constructed them. Examination of how fear of threats such as disease, illness, and death were constructed alongside fears of foreign and non-Western others and the ways in which these themes were transmitted across and within a wide range of or- dinary source texts, addressing core question of how different societies construct unique fears—and what fears shape those societies in turn. P/NP or letter grading.

M50A. First Civilizations. (5) (Same as Middle Eastern Studies M50A.) Lecture, three hours; discussion, one hour. Survey of great civilizations of ancient Near East—from Sumer to Con- nection of Prehistory, Old and Middle Kingdom. M103B. New Kingdom and Late period until 332 BC.

M104A. History of Ancient Mesopotamia and Syria. (4) (Same as History M104A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Political and cultural development of Fertile Crescent, including Palestine, from Late Uruk to neo-Babylonian period. P/NP or letter grading.

M50B. Origins of Judaism, Christianity, and Islam. (5) (Same as Middle Eastern Studies M50B and Reli- gion M50B.) Lecture, three hours; discussion, one hour. Examination of three major monotheisms of Western cultures—Judaism, Christianity, and Islam—histori- cally and comparatively. Development, teachings, and ritual practices of each tradition up to and including medieval period. Composition and development of various sacred texts, highlighting key themes and ideas within different historical and literary strata of traditions, such as mechanisms of revelation, struggle for religious authority, and common theological issues such as origin of evil and status of nonbelievers. Letter grading.

M50C. History of Achaemenid Empire. From (same as History M50C and Iranian M50C.) Lecture, three hours; discussion, one hour. Overview of Sumeria and related cultures of Greater Mesopotamia in 4th and 3rd mil- lennium BCE, with focus on rich cultural history of region and integration of archaic and historical, and written records. P/NP or letter grading.
Lecture, three hours. Requisite: 121A-121B-121C. Intermediate Ancient Egyptian Readings. (5–5–5) Lecture, three hours. Requisite: course 120B. Course 120C is requisite to 121B, which is requisite to 122B, which is requisite to 121C. Thematic readings in ancient Egyptian hieratic and literary texts. May be repeated for credit. P/NP or letter grading.

122. Elementary Egyptian: Intensive. (12) Lecture, 10 hours; discussion, 10 hours. Not open to students who have studied ancient Egypt, enough Egyptian to qualify for more advanced courses. Intensive course equivalent to courses 120A, 120B, and 120C. Introduction to hieroglyphic script and phonology and morphology of Middle Egyptian, with emphasis on grammatical forms, reading, and grammar. Offered in summer only. P/NP or letter grading.

123A-123B. Egyptian Archaeology. (5–5) Lecture, three hours. Requisite: course 123A. Introduction to Coptic, final phase of Egyptian language, which is attested in writing from circa 300 to 1400 CE. Concurrently scheduled with courses C223A-C223B. P/NP or letter grading. 123A. Devoted to learning Coptic alphabet, grammar, and vocabulary (Sahidic dialect), with particular emphasis on historical linguistics. 123B. Requisite: course 123A. Introduction to variety of Coptic textual genres, from hagiographies to homilies, exegeses from biblical letters, legal tracts, and Gnostic Gospels found in Nag Hammadi. Readings in texts in dialects other than Sahidic (Bohairic, Fayumic, Akhmimic).

124. Middle Egyptian Technical Literature. (4) Lecture, three hours. Requisite: course 111C. Reading of Middle Egyptian technical literature in hieroglyphic transcription. Medical, veterinary, mathematical, and astronomical texts included. P/NP or letter grading.

125A. Digital Cultural Mapping Core Course A: Place, Time, and Digital World. (4) Lecture, three hours; discussion, one hour. Introduction to how emerging digital mapping technologies like geographic information systems (GIS), virtual globes, and three-dimensional modeling are being utilized as new means of inquiry in the humanities and social sciences. Provides students with critical apparatus needed to reason about cultural and historical use technology in digital cultural mapping projects. Analysis of different forms of visual presentation, with focus on data representation through mapping, reasoning, and critical thinking. Students learn to critically assess map-based presentations. Tracing of history of mapping and spatial representation of place to learn how mapping has always been connected with societal structures, and how the control over access to these maps do not merely represent reality, but also produce reality by structuring world and organizing knowledge about it. Part of Digital Cultural Mapping Project supported by W.M. Keck Foundation. P/NP or letter grading.

125B. Digital Cultural Mapping Core Course B: Google Earth, Geographic Information Systems, Hypertexts, and Timelines. (4) Same as Architecture and Urbanism 142B. Lecture, three hours; discussion, one hour. Enforced requisite: course 125A. Hands-on laboratory-based investigation of emerging digital mapping technologies, including instruction in Web-based mapping applications, virtual globes, and geographic information systems (GIS). Critique and creation of maps of cultural phenomena, applying skills students learned in course 125A to real-world datasets and archaeological scenarios. By mastering emerging technologies in field of digital cultural mapping, students take part in evaluation and production of sophisticated visual representations of complex data, becoming active participants in development of new dataset and neogeography tools. Fostering of creative approaches to and engagement with mapping technologies: What new questions can be asked and answered using these technologies? How does one reason, argue, and solve real-world problems through digital cultural mapping? Design, development, and implementation of student mapping-based research projects. Part of Digital Cultural Mapping Project supported by W.M. Keck Foundation. P/NP or letter grading.

125C. Digital Cultural Mapping Core Course C: Summer Research. (4) Same as Architecture and Urban Design 125C. Lecture, three hours; field research, one hour. Enforced requisite: course 125B or Architecture and Urban Design 125B. Participation in collaborative geographic information systems (GIS) research project in which students use skills learned in courses 125A and 125B. Gathering and input of datasets from real-world sources, creating visual representations of data through production of digital maps, and performing analysis of larger dataset to answer specific research questions. Final oral presentation that details student work and provides critical analysis of source material and technologies. Students are expected to be proficient in type of GIS used for investigation. Part of Digital Cultural Mapping Project supported by W.M. Keck Foundation. Offered in summer only. P/NP or letter grading.

130. Ancient Egyptian Religion. (3) Same as Religion 131B. Lecture, two hours; discussion, one hour. Introduction to religious beliefs, practices, and sentiments of ancient Egypt to study Egyptian religion as coherent system of thought and sphere of action that once served as religious and political foundation of Egypt. Study of religious and political foundation of Egypt through textual evidence and archaeological remains. May be repeated for credit. P/NP or letter grading.

140A. Elementary Sumerian. (4) Lecture, three hours; tutorial, one hour. Introduction to Sumerian, oldest cuneiform language, with examples attested in Mesopotamia from 3rd millennium BCE to 1st century CE. Elementary grammar, syntax, and vocabulary overviewed by Sumerian. Focus on structure of nominal and verbal chain, reading of basic royal inscriptions and other texts. P/NP or letter grading.

140B-140C. Elementary Sumerian. (4–4) Lecture, three hours. Requisite: Semiotics 140A, 140B. Elementary grammar and reading of royal inscriptions, letters, and administrative texts from Ur III period. P/NP or letter grading.

141A. Elementary Akkadian. (4) Same as Semitic Languages 141A. Lecture, three hours. Elementary grammar and reading of texts in standard Babylonian. P/NP or letter grading.

150A. Heroes, Gods, and Monsters: Literature and Epic in Mesopotamia. (5) same as Literature 150A. Lecture, three hours. Survey of literary texts and traditions the ancient Near East, specifically Mesopotamia, from Old Akkadian (circa 2300 BCE) to Neo-Babylonian (circa 600 BCE) period. Texts read in English translation include literary texts, royal inscriptions, incantations, royal and divine hymns, with focus on literary epics, particularly first millennium BCE Epic of Gilgamesh. Discussion of texts, their narratives, and their divine and human actors. Discussion of sociohistorical context for cuneiform (Sumerian and Akkadian) texts and royal, religious, and cultural roles of different texts. P/NP or letter grading.

150B. Survey of Ancient Near Eastern Literatures in English: Egypt. (4) Lecture, three hours. Preparation: familiarity with Egyptian history. Enforced requisite: courses M103A, M103B. Survey of 3,000 years of ancient Egyptian literature. Readings of Egyptian texts in translation to study Egypt's intellectual history and trace transformations in its construction of cultural identity. Topics include invention of writing, autobiographical texts, religious texts, narrative, hymns, and consolations. Discussion of text analysis such as narratology. May be taken independently for credit. P/NP or letter grading.


162. Archaeology, Identity, and Bible. (5) Lecture, three hours; discussion, one hour. Introduction of archaeological record of sources of ancient Israel (from Bronze Age through Achaemenid Period (circa 2500–332 BC) in combination with current understandings of genre, authorship, and historical value of ancient Israel. Ancient Israelite identities are traced through combination of archaeological and textual sources. Social, religious, and political traditions of ancient Israel and Judah are interpreted in context of both eastern Bronze Age traditions and Israel's Iron Age neighbors. Archaeological and textual data for identities, such as Amorites, Canaanites, Phoenicians, Egyptians, Assyrians, and Babylonians, form basis for evaluation of construction and interpretation of various biblical identities. Introduction to theoretical and methodological issues involving historical archaeology of ancient Israel and Levant, and possibilities for investigating identity in archaeological record. P/NP or letter grading.

163. Archaeology of Iran. (4) Same as Iranian Literature 163. Lecture, three hours. Designed to introduce students to Iranian archaeology from prehistoric through Achaemenid periods. Concurrently scheduled with course CM259. P/NP or letter grading.

164. Archaeology of Levant. (4) Lecture, three hours. Survey of archaeology of Levant from late fifth millennium BCE to Neo-Babylonian Period (circa 4500–332 BC). Examination of social, economic, political, and cultural developments through archaeological finds from geographic region bounded by Anatolia and Mesopotamia on north, Egypt to south, and Arabian Peninsula to east. Archaeological methods, theory, and practice are addressed; and geographic, environmental, climatological, and textual data are employed to establish broader context for Levantine history. P/NP or letter grading.

165. Egyptian Archaeology. (4) Lecture, three hours. Seminar. Three hours. Opportunity to research aspects of topics in ancient Egyptian archaeology. Topics vary each year. May be repeated for credit. Concurrently scheduled with course C265. P/NP or letter grading.

166. Art and Death in Ancient Egypt. (4) (Formerly numbered 166) Same as Art History M110D.) Lecture, four hours. Ways of death, burial, funerary ritual, and afterlife beliefs in ancient Egypt, as well as in ancient Near East and Nubia, with focus on ancient visual materials—both objects and architecture—from Predynastic to Roman periods. P/NP or letter grading.

167. Magic in Ancient World. (4) Same as Classics M167.) Lecture, three hours; discussion, one hour (when scheduled). Requisite: Classics 10 or 20. Exploration of art of influencing natural course of events by occult means as practiced in ancient world at large. Coverage of beliefs in supernatural forces, rites aimed at controlling these forces effectively, and character
and social roles of ritual experts in various cultures of ancient world. Source material includes types of magi-
ical spells, literary texts about magic and magicians, and arts such as amulets and ritual implements. P/NP or letter grading.

M168A. Introductory Hittite. (Formerly numbered M168B.) (Same as Indo-European Studies M168A.) Lecture, three hours. Recommended preparation: knowledge of language with case system. Introduction to Hittite grammar by series of graded lessons covering morphology and syntax, followed by readings of selected texts from variety of genres. P/NP or letter grading.

M168B. Introductory Hittite. (Same as Indo-European Studies M168B.) Lecture, three hours. Recommended requisite: course M168A. Readings of selected Hittite texts from variety of genres and historical periods. Individual topics in synchronic and historical grammar of Hittite and in history and culture of Hittites are treated in detail. P/NP or letter grading.

CM169. Introduction to Archaeological Sciences. (4) (Same as Anthropology CM110Q.) Lecture, three hours. Majors in archaeology are treated in detail. P/NP or letter grading.

M170. Bible and Its Interpreters. (4) (Same as Religion M172.) Lecture, three hours. Knowledge of original languages not required. Bible (Old and New Testaments) as book, canon, text, and versions, Linguistic, literary, historical, and religious approaches to Bible study, Survey of history of interpretation from antiquity to present. P/NP or letter grading.

M172. Elementary Luwian. (4) (Same as Indo-European Studies M172.) Lecture, three hours. Recommended preparation: knowledge of language with case system. Introduction to Luwian grammar through lectures covering morphology and syntax, and readings of selected hieroglyphic and cuneiform texts. P/NP or letter grading.

175. Conceptions of Race in Ancient Egypt. (4) Lecture, three hours; discussion, one hour. Exploration of how racial hierarchies are created and maintained within ancient Egyptian culture. The notion that all of ancient Egyptians is still at stake and tied to larger issues of racial and ethnic inequalities, prejudices, and oppression. Examination of modern issues invites comparison with conception of race in ancient Egypt, and which was not necessarily equivalent to our own. By consulting diverse group perspectives, including those of early scholars, contemporary anthropologists, Afrocentrist scholars and artists, Hebrew Bible, ancient Egyptian evidence, and ancient Nubian evidence, conception of race is revealed to be complex, fluid, and contradictory. These conceptions were and are used to construct variety of equally contradictory hierarchies. Often based on same evidence. P/NP or letter grading.

C177. Variable Topics in Ancient Near East. (4) Lecture, three hours; discussion, one hour. Variable topics; subject, schedule, and classes for topics to be offered in specific term. Concurrently scheduled with course C277. P/NP or letter grading.

M179. Cultural Heritage and Identity Representation: Creating Fowler and Virtual Exhibit. (4) (Same as Art History M179.) Lecture, three hours; course and laboratory, one hour. Exploration of what it takes to run museum and create exhibit. Introduction to different types of museum work, ranging from collecting and curation, to research, conservation, presentation, visitor experience, and management. Students jointly create exhibit based on Fowler Museum collection. Students research and discuss context and different stakeholders that relate to current project; consider representation. Consideration of narrative exhibit and how objects and their arrangement convey deliberate or accidental messages. Consideration of audiences as well as original context of each object. Focus on people behind objects, technologies, or material characteristics. P/NP or letter grading.

M185D. Religions of Ancient Near East. (4) (Same as History M185D and Religious Studies M185D.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Main polytheistic systems of ancient Near East, with emphasis on Mesopotamia and Syria and with reference to religion of ancient Israel: varying concepts of divinity, hierarchies of gods, prayer and cult, magics, wisdom, and moral conduct. P/NP or letter grading.

186. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with course lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

197. Individual Studies in Ancient Near East. (2 to 4) Tutorial, one hour. Enrolled with departmental consent. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

199. Directed Research or Senior Project in Ancient Near East. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Supervised individual research or investigation under preceptor. Only a paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

M201. Archaeological Research Design. (4) (Same as Anthropology M201C and Archaeology M201C.) Seminar, two hours; research group meeting, one hour. Preparation for original research. It would form basis for extensive paper, grant application, or oral examination. Students work closely with faculty members and report weekly on their progress. Preparation of at least two oral presentations. It will be on theoretical framework and one on practical aspects of project. Final written research design that incorporates theoretical and practical aspects of research and formulates argument, may be repeated for credit. S/U or letter grading.

M208. Topics in Ancient Iranian History. (4) (Same as History M210 and Iranian M210.) Seminar, three hours. Varying topics on Elamite, Achaemenid, Arsacid, and Sassanian history. May be repeated for credit. S/U or letter grading.

210. Late Egyptian. (4) Lecture, three hours. Required: courses 121A, 121B, 121C. Late Egyptian grammar and reading of both hieroglyphic and hieratic texts. May be repeated for credit. S/U or letter grading.


215. Readings in Middle Kingdom Literature. (4) Seminar, three hours. Enforced requirement: courses 120A, 120B, 120C. Survey of Middle Kingdom literature through close readings of texts in original language and evaluation of current scholarship on these texts. Students hone their knowledge of Middle Egyptian grammar and become familiar with philological methods in study of Egyptian literature. S/U or letter grading.

220. Seminar: Ancient Egypt. (4) Seminar, three hours. Majors in Art History 210 or Art History 211 required. Letter grading.

221A-221B. Demotic. (4–4) Lecture, three hours. Required course 121C. Course 221A is requisite to 221B. Introduction to Demotic grammar and orthography. Reading of texts from various genres. May be repeated for credit with topic change. S/U or letter grading.

C223A-C223B. Coptic. (5–5) Lecture, three hours. Introduction to Coptic, final phase of Egyptian language, which is attested in writing from circa 300 to 1400 CE. Concepts covered in scheduled course are C223A-C223B. S/U or letter grading. C223A. Devoted to learning Coptic alphabet, grammar, and vocabulary (Sahidic dialect), with particular emphasis on historical linguistics. S223B. Required: course C223A. Introduction to variety of Coptic textual genres, from hagiographies to homilies, magical spells, private letters, legal contracts, and Gnostic Gospels found in Nag Hammadi. Readings in texts in dialects other than Sahidic (Boharic, Fayumic, Akhmimic).

230. Seminar: Ancient Syria/Palestine. (4) Seminar, three hours. Examination of selected topics on political, social, and intellectual history of ancient Israel. Exploration of how historical, social, and political contexts shaped and influenced interpretation and use of biblical texts. May be repeated for credit. S/U or letter grading.

240A-240B-240C. Seminars: Sumerian Language and Literature. (4–4–4) Seminar, two hours. Readings of texts from various Sumerian periods and literary genres; selected problems in linguistic or stylistic analysis and literary history. S/U or letter grading.

CM259. Archaeology of Iran. (4) (Same as Iranian CM259.) Lecture, three hours. Designed to introduce students to Iranian archaeology from prehistoric through Achaemenid times. Concurrently scheduled with course CM165. S/U or letter grading.

260. Seminar: Ancient Near Eastern Archaeology. (2 to 4) Seminar, two hours. May be repeated for credit. S/U or letter grading.

261. Practical Field Archaeology. (2 to 8) Fieldwork, two hours. Participation in archaeological excavations or other archaeological research in Near East under staff supervision. May be repeated for credit. S/U or letter grading.

262. Seminar: Object Archaeology. (4) Seminar, two hours; fieldwork, one hour. Examination in analysis and interpretation of Near Eastern archaeological finds in museum collections. Students work with objects in Heerannak Collections of Los Angeles County Museum of Art (S). S/U or letter grading.

263. Seminar: Egyptian Monuments. (4) Seminar, two hours. Selected monuments and sites in Egypt, including Delta, Nile Valley, desert sites, wadis, oases, and border regions. Architecture and decoration of temples and tombs, statuary and monuments, settlement and use history, text translation of appropriate documents, including stele, monumental inscriptions, or pertinent socioeconomic texts. May be repeated. S/U or letter grading.

264. Egyptian Museum Collections. (4) Seminar, two hours; research group meeting, one hour. Ancient Egyptian museum collections around world, data sets, provenance and dating studies, collection history and agenda, museology, and exhibition history. May be repeated for credit with consent of instructor. S/U or letter grading.

M265. Depositional History and Stratigraphic Analysis. (4) (Same as Archaeology M265.) Lecture, two hours. Theoretical understanding of depositional processes ("laws") which lead to site formation and of stratigraphic procedures to be used in recovery of buried materials. Study of issues covered in literature, with specific test cases from actual excavations and site reports. Coverage of theoretical implications of such disciplines as surveying and pedology with help of specialists. S/U or letter grading.

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19. Flat Lux Fresherman Seminars. (Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members. Participation in seminars involving many paths of discovery at UCLA. P/NP grading.

89. Honors Seminars. (Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth than 102A, 102B, 102C and other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

98HC. Honors Contracts. (Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics of potential interest. Additional readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students develop a research topic and academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

102A-102B-102C. Intermediate Standard Arabic. (4-4-4) Lecture, four hours. Enrolled required: course 1C or 8. Course 102A is requisite to 102B, which is requisite to 102C. Not open to students who have learned, from whatever source, enough Arabic to qualify for more advanced courses. Intermediate formal Arabic, including listening, speaking, reading, and writing. P/NP or letter grading.

103A. Advanced Arabic. (4) Lecture, four hours. Enrolled required: courses 102A, 102B, 102C. Not open to students who have learned, from whatever source, enough Arabic to qualify for more advanced courses. Advanced formal Arabic, including grammar, composition, and readings from classical and modern texts. P/NP or letter grading.

103B. Advanced Arabic. (4) Lecture, four hours. Enrolled required: courses 102A, 102B, 102C. Not open to students who have learned, from whatever source, enough Arabic to qualify for more advanced courses. Advanced formal Arabic, including grammar, composition, and readings from classical and modern texts. P/NP or letter grading.

103C. Advanced Arabic. (4) Lecture, two and one half hours. Enrolled required: courses 1C or 102B. 102C. Not open to students who have learned, from whatever source, enough Arabic to qualify for more advanced courses. Advanced formal Arabic, including grammar, composition, and readings from classical and modern texts. P/NP or letter grading.

105. Introduction to Qur’anic and Islamic Arabic. (4) Lecture, three hours. Requisites: courses 1A, 1B, 1C. Introduction to Arabic used in Qur’an, Hadith (traditions of Prophet Muhammad’s companions) and early Islamic literature (biographies of Prophet and historical narratives). P/NP or letter grading.

106. Qur’an. (4) Formerly numbered M106. Lecture, three hours. Introduction to Quran, its early history, and form and function as scripture in Muslim history, civilization, and culture. Focus also on Qur’anic interpretation, its relationship to Islamic thought. In contemporary discussions such as human rights, feminism, and contemporary reform movements. Primary sources include excerpts from Qur’an, Qur’anic interpretation, and selected writings of Muslim thinkers and reformists. Strong focus on analytical and writing skills through in-class assignments and discussion. Concurrently scheduled with course C206. Letter grading.

107. Islam in West. (5) Same as Islamic Studies CM107 and Religion M107. Lecture, three hours. Discussion, one hour. Acquisition of understanding of basic doctrines and practices of Islam. Survey of history of Islam in West, with focus on U.S. and France. Analysis of issues relevant to growth and development of new religious Muslim communities (e.g., Muslims of African descent) in diverse expressions of Islam through independent research on Muslim communities and institutions in U.S. Development of strong analytical writing and speaking skills. P/NP or letter grading.

108. Summer Intensive Intermediate Arabic. (12) Lecture, and discussion, 20 hours. Enrolled requisite: course 1C. Not open to students who have learned, from whatever source, enough Arabic to qualify for more advanced courses. Necessary for completion to courses 102A, 102B, and 102C. Intermediate formal Arabic, including listening, speaking, reading, and writing. Offered in summer only. P/NP or letter grading.

M101. One Thousand and One Nights/All Layla Wa-Layla. (4) Same as Comparative Literature M110. Lecture, three hours. Knowledge of Arabic not required. Since its appearance in Europe in 1704, One Thousand and One Nights is most well-known work of Arabic literature in West. Examination of cycle of tales more commonly known as Arabian Nights, including history of its translation, contemporary oral performances of tales in Arabic literature, literary emergence of vernacular language in relation to classical Arabic, and Western appropriations of tales in music, film, and novels (Ravel, Rimsky-Korsakov, Sartre, Pinter, and Walt Disney). May be applied toward honors credit. P/NP or letter grading.

111S. Summer Intensive Elementary Egyptian Arabic. (4-4-4) Lecture, three hours. Knowledge of Arabic not required. Taught in Egyptian colloquial Arabic for heritage speakers or students who have completed courses 1A, 1B, 1C. P/NP or letter grading.

115. Studies in Arabic A dialectology. (4) Lecture, three hours. Introduction to one spoken dialect of Arabic, with emphasis on speaking and listening comprehension. Dialects vary from year to year based on student interest and instructor availability and may include Iraqi Arabic, Levantine, North Africans, or Gulf Arabic. May be repeated for credit. P/NP or letter grading.


112A-112B-112C. Advanced Spoken Egyptian Arabic. (4-4-4) Lecture, three hours. Knowledge of Arabic not required; not suitable for heritage speakers. Advanced Spoken Egyptian colloquial Arabic for heritage speakers or students who have completed courses 1A, 1B, 1C. P/NP or letter grading.

120. Islamic Texts. (4) Lecture, four hours. Requisite: course 103C. Readings from Qur’an, Tafsir, Hadith, Fiqh. May be repeated for credit. Offered in Arabic and English. P/NP or letter grading.


130. Classical Arabic Texts. (4) Lecture, four hours. Requisite: course 103B. Introduction to premodern literary texts, with grammatical and syntactical analysis. May be repeated for credit. Letter grading.


140. Readings in Modern Standard Arabic. (4) Lecture, four hours. Requisite: course 103A, or consent of instructor. Development of reading, speaking, and
writing abilities in modern standard Arabic, as well as
cultural knowledge, through film screenings,
discussions, written compositions, verbal presentations, and
reading and translation exercises from Arabic-speaking
world. Prepares students for more advanced literary
Arabic courses. P/NP or letter grading.

C141. Modern Arabic Literature. (4) Lecture, three
hours. Requisite: course 102C. Conducted in English and
Arabic to study major works of modern status Arabic
literature of all Arab countries. Coverage of various
genres, periods, and themes in Arabic literature. May be
repeated for credit. S/U or letter grading.

M231. Texts in Judeo-Arabic. (4) (Same as Hebrew
M148.) Lecture, three hours. Requisite: course 102C.
Hebrew 102C. Reading of Judeo-Arabic texts by Mai-
monides (medieval religion, medicine, philosophy) and
more recent texts in Judeo-Arabic dialects of Iraq and
Egypt, with discussion of grammar and deviations
from norms of classical Arabic. S/U or letter grading.

240A. Seminar: Arab Historians. (4) Seminar, three
hours. Introduction to very large body of literature on
medieval Islamic history. Selected readings in Arabic
that represent cross-section of Islamic historical writ-
ings, including Ibn Ishaq’s Sirat, Wajidji’s Maghazhi,
Baladurhi’s Futuh, Tabari’s Tarikh, digest of Ya’qubi
and Mas’udi, Ibn Khalidun’s Muqaddima, and Maghrizi’s
topography. Historians studied either to determine
their reliability as sources or their view of history and
its theoretical foundations. Exploration of sources,
search tools, and problems in Islamic history. May be
repeated for credit. S/U or letter grading.

240B. Seminar: Arab Geographers. (4) Seminar, three
hours. Introduction to large body of literature on medi-
 eval Islamic geographers. Selected readings in Arabic
that represent cross-section of Islamic geographical
writings distributed over number of disciplines and
various aspects of geography, such as Surat al-ard,
Kitab al-Buldun, al-Masalik wal-mamalk, topography,
and travel accounts. May be repeated for credit. S/U
or letter grading.

C241. Modern Arabic Literature. (4) Lecture,
three hours. Requisite: course 102C. Conducted in
English and Arabic, with all required readings in orig-
inal Arabic only. Readings in modern Arabic literature,
variably organized across or around particular trends,
genres, topics, canonical authors, regional, or national
literatures, mixing thematic and formal analyses of lit-
erature and critical texts in German, English, and
Arabic. May be repeated for credit. S/U or letter grading.

C145. Arabic Media. (4) Lecture, four hours. Requisite:
course 103A. Development of facility with language of
Arabic press and broadcasting. Activities include
monitoring current materials via Internet; transcribing,
translating, and summarizing; writing original reports
in Arabic; and oral presentations and discussions.
May be repeated for credit. P/NP or letter grading.

M148. Contemporary Arab Film and Song. (4)
(Same as Comparative Literature M148.) Seminar, three
hours. Lectures and discussion of world cinema,]
most of which are in Arabic. Focus on films and
song that represent cross-section of Islamic historical
writings, including Ibn Ishaq’s Sirat, Wajidji’s Maghazhi,
Baladurhi’s Futuh, Tabari’s Tarikh, digest of Ya’qubi
and Mas’udi, Ibn Khalidun’s Muqaddima, and Maghrizi’s
topography. Historians studied either to determine
their reliability as sources or their view of history and
its theoretical foundations. Exploration of sources,
search tools, and problems in Islamic history. May be
repeated for credit. S/U or letter grading.

240A. Seminar: Arab Historians. (4) Seminar, three
hours. Introduction to very large body of literature on
medieval Islamic history. Selected readings in Arabic
that represent cross-section of Islamic historical writ-
ings, including Ibn Ishaq’s Sirat, Wajidji’s Maghazhi,
Baladurhi’s Futuh, Tabari’s Tarikh, digest of Ya’qubi
and Mas’udi, Ibn Khalidun’s Muqaddima, and Maghrizi’s
topography. Historians studied either to determine
their reliability as sources or their view of history and
its theoretical foundations. Exploration of sources,
search tools, and problems in Islamic history. May be
repeated for credit. S/U or letter grading.

240B. Seminar: Arab Geographers. (4) Seminar, three
hours. Introduction to large body of literature on medi-
 eval Islamic geographers. Selected readings in Arabic
that represent cross-section of Islamic geographical
writings distributed over number of disciplines and
various aspects of geography, such as Surat al-ard,
Kitab al-Buldun, al-Masalik wal-mamalk, topography,
and travel accounts. May be repeated for credit. S/U
or letter grading.

C241. Modern Arabic Literature. (4) Lecture,
three hours. Requisite: course 102C. Conducted in
English and Arabic, with all required readings in orig-
inal Arabic only. Readings in modern Arabic literature,
variably organized across or around particular trends,
genres, topics, canonical authors, regional, or national
literatures, mixing thematic and formal analyses of lit-
erature and critical texts in German, English, and
Arabic. May be repeated for credit. S/U or letter grading.

C245. Arabic Media. (4) Lecture, four hours. Requisite:
course 103A. Development of facility with language of
Arabic press and broadcasting. Activities include
monitoring current materials via Internet; transcribing,
translating, and summarizing; writing original reports
in Arabic; and oral presentations and discussions.
May be repeated for credit. P/NP or letter grading.

C141. Modern Arabic Literature. (4) Lecture, three
hours. Requisite: course 102C. Conducted in English and
Arabic to study major works of modern status Arabic
literature of all Arab countries. Coverage of various
genres, periods, and themes in Arabic literature. May be
repeated for credit. S/U or letter grading.

M231. Texts in Judeo-Arabic. (4) (Same as Hebrew
M148.) Lecture, three hours. Requisite: course 102C.
Hebrew 102C. Reading of Judeo-Arabic texts by Mai-
monides (medieval religion, medicine, philosophy) and
more recent texts in Judeo-Arabic dialects of Iraq and
Egypt, with discussion of grammar and deviations
from norms of classical Arabic. S/U or letter grading.

240A. Seminar: Arab Historians. (4) Seminar, three
hours. Introduction to very large body of literature on
medieval Islamic history. Selected readings in Arabic
that represent cross-section of Islamic historical writ-
ings, including Ibn Ishaq’s Sirat, Wajidji’s Maghazhi,
Baladurhi’s Futuh, Tabari’s Tarikh, digest of Ya’qubi
and Mas’udi, Ibn Khalidun’s Muqaddima, and Maghrizi’s
topography. Historians studied either to determine
their reliability as sources or their view of history and
its theoretical foundations. Exploration of sources,
search tools, and problems in Islamic history. May be
repeated for credit. S/U or letter grading.

240B. Seminar: Arab Geographers. (4) Seminar, three
hours. Introduction to large body of literature on medi-
 eval Islamic geographers. Selected readings in Arabic
that represent cross-section of Islamic geographical
writings distributed over number of disciplines and
various aspects of geography, such as Surat al-ard,
Kitab al-Buldun, al-Masalik wal-mamalk, topography,
and travel accounts. May be repeated for credit. S/U
or letter grading.

C241. Modern Arabic Literature. (4) Lecture,
three hours. Requisite: course 102C. Conducted in
English and Arabic, with all required readings in orig-
inal Arabic only. Readings in modern Arabic literature,
variably organized across or around particular trends,
genres, topics, canonical authors, regional, or national
literatures, mixing thematic and formal analyses of lit-
erature and critical texts in German, English, and
Arabic. May be repeated for credit. S/U or letter grading.

C245. Arabic Media. (4) Lecture, four hours. Requisite:
course 103A. Development of facility with language of
Arabic press and broadcasting. Activities include
monitoring current materials via Internet; transcribing,
translating, and summarizing; writing original reports
in Arabic; and oral presentations and discussions.
May be repeated for credit. P/NP or letter grading.
19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through readings, discussions, and other activities. Credit by permit of the instructor. May be repeated for credit.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honor content noted on transcript. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

101A-101B-101C. Elementary Modern Western Armenian. (5-5-5) Lecture, five hours. Course 101A is recommended requisite to 101C. Students with knowledge of Armenian should contact instructor to determine appropriate enrollment level. Armenian grammar, conversation, and exercises. P/NP or letter grading.

102A-102B-102C. Intermediate Modern Western Armenian. (5-5-5) Lecture, five hours. Recommended requisite: course 1C. Students with knowledge of Eastern or Western Armenian (from elementary or high school) should contact instructor to determine appropriate enrollment level. Reading of selected texts, composition, and conversation. Each course may be taken independently for credit. P/NP or letter grading.


151. Armenian Literature and Canon Formation. (4) Lecture, four hours. Discussion of fundamental themes and genres around which Armenian literary tradition evolved and modalities by which this has been transformed in course of last two centuries as result of exposure to European thought and expressive forms. Concurrently scheduled with course C251. P/NP or letter grading.

152. Modern Armenian Drama as Vehicle for Social Critique. (4) Lecture, four hours. Readings of selected plays from 1860s to 1930s and main genres of tragedy, comedy, and serious drama and featuring works by most significant Armenian playwrights, with focus on their role as commentators on contemporary mores and as agents for social reform. Concurrently scheduled with course C252. Letter grading.

153. Art, Politics, and Nationalism in Modern Armenian Literature. (4) Lecture, four hours. Examina- tion of role of literature in construction of Armenian society in service to cause or causes, as propaganda for various ideologies, as art for art’s sake, etc. Exploration of contrasting aesthetics implicit in these differing interpretations. Concurrently scheduled with course C253. P/NP or letter grading.

Variable Topics in Armenian Studies. (4–4) Lecture, three hours. Requisite: course 1C or 4C. Overview of process behind creation of range and variety of poetic expression that developed in new literary formats and genres from late 18th to early 20th centuries. Special attention to crafting of central images and toaya and their development. Concurrently scheduled with course letter grading.

M176. Armenian Film and Culture. (5) Lecture, six hours. Requisite: course 1C or 4C. Overview of process behind creation of range and variety of poetic expression that developed in new literary formats and genres from late 18th to early 20th centuries. Special attention to crafting of central images and toaya and their development. Concurrently scheduled with course letter grading.

Armenian Poetry, 1880 to 1930. (4) Lecture, three hours. Requisite: course 1C or 4C. Overview of process behind creation of range and variety of poetic expression that developed in new literary formats and genres from late 18th to early 20th centuries. Special attention to crafting of central images and toaya and their development. Concurrently scheduled with course letter grading.

170. Armenian Poetry, 1880 to 1930. (4) Lecture, three hours. Requisite: course 1C or 4C. Overview of process behind creation of range and variety of poetic expression that developed in new literary formats and genres from late 18th to early 20th centuries. Special attention to crafting of central images and toaya and their development. Concurrently scheduled with course letter grading.

M172. Medieval Armenian Art. (4) (Same as Art History M118A.) Lecture, three hours. Overview of development of modern Armenian painting and sculpture out of its matrix in 17th and 18th centuries. P/NP or letter grading.

173. Armenian Painting, 17th to 20th Century. (4) (Same as Art History M118B.) Lecture, three hours. Overview of development of modern Armenian painting and sculpture out of its matrix in 17th and 18th centuries. P/NP or letter grading.

Variable Topics in Armenian. (4) Lecture, four hours. Departmentally sponsored experimental or temporary courses, such as those taught by visiting faculty members. May be repeated for credit with topic change. P/NP or letter grading.

Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Independent study with lecture course instructor. May be repeated for credit. Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP or letter grading.

180. Armenian Film and Culture. (5) Lecture, six hours. Requisite: course 1C or 4C. Overview of process behind creation of range and variety of poetic expression that developed in new literary formats and genres from late 18th to early 20th centuries. Special attention to crafting of central images and toaya and their development. Concurrently scheduled with course letter grading.

C224. Art, Politics, and Nationalism in Modern Armenian Literature. (4) Lecture, four hours. Examination of role of literature in modern Armenian society in service to cause or causes, as propaganda for various ideologies, as art for art’s sake, etc. Exploration of contrasting aesthetics implicit in these differing interpretations. Concurrently scheduled with course C151. S/U or letter grading.

C225. Issues in Armenian American Literature and Culture. (4, 2) Lecture, four hours. Preparation: reading knowledge of modern Eastern and Western Armenian. Theoretically informed exploration of some of most salient questions related to Armenian American community as reflected in its literature and other cultural artifacts in interaction with its pluralistic American ambience. Concurrently scheduled with course C155. P/NP or letter grading.

C226. 17th to 20th Century. (4) Lecture, three hours. Requisite: course 1C or 4C. Overview of development of modern Armenian painting and sculpture out of its matrix in 17th and 18th centuries. P/NP or letter grading.

M173. Armenian Painting, 17th to 20th Century. (4) (Same as Art History M118B.) Lecture, three hours. Overview of development of modern Armenian painting and sculpture out of its matrix in 17th and 18th centuries. P/NP or letter grading.

Armenian Film and Culture. (5) Lecture, six hours. Requisite: course 1C or 4C. Overview of development of modern Armenian painting and sculpture out of its matrix in 17th and 18th centuries. P/NP or letter grading.

Directed Research or Senior Project in Armenian Literature. (1) Seminar, one hour. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and a course paper or term paper. Individual contract required. P/NP or letter grading.

Directed Research or Senior Project in Armenian. (2 to 4) Seminar, one hour. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

199. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP or letter grading.

Upper-Division Courses

102A-102B-102C. Intermediate Hebrew. (5–5–5) Lecture, five hours. Enforced requisite: course 1C or Hebrew placement test. Course 102A is enforced requisite to 102B, which is enforced requisite to 102C. Not open to native speakers. Amplification of grammar; reading of texts from modern literature. P/NP or letter grading.

103A-103B-103C. Advanced Hebrew. (4–4–4) Lecture, five hours. Enforced requisites: courses 102A, 102B, and 102C, or Hebrew placement test. Students with prior knowledge of Hebrew who did not take courses 102A, 102B, and 102C should contact instructor to determine appropriate enrollment level. Not open to native speakers. Designed for students with intermediate speaking fluency and reading abilities in Hebrew. Introduction to modern Hebrew literary texts. P/NP or letter grading.


110C. Readings in Biblical Hebrew. (4) Lecture, three hours. Vocabulary, phonology, morphology, and structure of biblical Hebrew. Introduction to certain aspects of historical grammar of biblical Hebrew. Reading and translation of variety of texts from different historical periods of Hebrew language, including texts from Aramaic, Standard, and Late periods. Increased understanding of Hebrew biblical system, including different verbal patterns, their morphology, and syntactic function in biblical Hebrew prose. P/NP or letter grading.

111A. Israel Society through Hebrew Song and Video. (4) Lecture, three hours; laboratory, one hour. Requisite: course 1C. Use of contemporary Israeli song and video to explore Israeli collective imagination and various Israeli sociocultural issues to familiarize students with different aspects of Israeli daily life and popular culture, while the songtext and video to explore Israeli collective imagination and various Israeli sociocultural issues using different kinds of media, such as video, Internet, and newspapers. P/NP or letter grading.

Near Eastern Languages and Cultures / 697
112. Readings in Modern Scholarly Hebrew. (2) Seminar, two hours. Requisite: course 102C. In-depth reading and discussion of selected scholarly articles in modern Hebrew disciplines. Bible study, Jewish history and folklore, sociology, and literary criticism. Development of student proficiency in vocabulary, terminology, and ideas in these fields while enhancing comprehension of complex syntactical structures in Hebrew. May be repeated for credit. P/N/P or letter grading.

M113. Contemporary Israeli Short Stories/Novellas and Films in English. (5) Same as Jewish Studies M113.) Lecture, two hours. Exploration of Israeli short stories/novellas and films (translated into English) written since mid-1980s that use, each to varying degree, postmodernist techniques to undermine predominate of modernist-Zionist narrative. Recycling and reexamination of Israeli condition and Zionist condition and skepticism about legitimacy of meta-narratives to redefine blurred outline of Israeli identity and subvert its underpinning formations. They simultaneously display loss of faith in representative dimension of language, including ability of texts to penetrate to its hidden meaning. Using periphery discourses, these texts strive to change modernist aesthetic and power paradigm. P/N/P or letter grading.


125. Hebrew Bible with Medieval Commentaries. (4) Lecture, three hours. Requisite: course 103C. Hebrew Bible with commentaries of Rashi, Ibn Ezra, and/or Nahmanides. May be repeated for maximum of 16 units. Letter grading.

130. Rabbinic Texts. (4) Lecture, three hours. Requisites: courses 103A, 103B, 103C. Readings in Mishnah, Talmud, and/or Midrash. May be repeated for maximum of 16 units. Letter grading.

135. Medieval Hebrew Texts. (4) Lecture, three hours. Requisites: courses 103A, 103B, 103C. Readings in medieval Hebrew prose and poetry. May be repeated for maximum of 16 units. P/N/P or letter grading.

C140. Modern Hebrew Poetry and Prose. (4) Lecture, three hours. Requisites: courses 103A, 103B, and 103C, or equivalent knowledge of Hebrew. Study of major Hebrew writers of past 100 years. May be repeated for credit. Concurrently scheduled with course C240. Letter grading.

170. Dead Sea Scrolls. (4) Lecture, three hours. Requisite: course 110C. Readings in Hebrew scrolls from Dead Sea caves; description of Scrolls with emphasis on literary, biblical interpretation in Dead Sea Scrolls. May be repeated for credit. P/N/P or letter grading.

180A-180B. Survey of Hebrew Grammar. (4–4) Lecture, three hours. Requisites: courses 102A, 102B, 102C. Descriptive and comparative study of Hebrew grammar: phonology and morphology. Topics include development of Hebrew language from biblical times to present day, its relation to Arabic and other Semitic languages, methods of language expansion in ancient Israel, traditional pronunciation of Hebrew by various Jewish communities, Hebrew contribution to other Jewish languages (Yiddish, Ladino, Judeo-Arabic), P/N/P or letter grading.

188FL. Special Studies: Readings in Hebrew. (2) Seminar, two hours. Requisite: course 102C. Students must be concurrently enrolled in an affiliated main course. Supplementary readings and advanced training in Hebrew, additional work in Hebrew to enrich and augment work assigned in main course, including reading, writing, and other exercises in Hebrew. P/N/P or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other adequate coursework. Instructor may be applied toward honors credit for eligible students. Honors credit noted on transcript. P/N/P or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual student may explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

197. Individual Studies in Hebrew. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/N/P or letter grading.

199. Directed Research or Senior Project in Hebrew. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Intensive individual research or investigation under guidance of faculty mentor. Culuming paper or project required. May be repeated for credit. Individual contract required. P/N/P or letter grading.

Graduate Courses


225. Studies in Dead Sea Scrolls. (2 or 4) Seminar, three hours. Requisite: course 120. Critical study of Dead Sea Scrolls, with attention to history of biblical interpretation and Hebrew Semantics in formationative Judaism. Reading in original manuscripts from Dead Sea Scrolls. May be repeated for credit. S/U or letter grading.

230. Rabbinic Hebrew Literature. (4) Seminar, three hours. May be repeated for credit. S/U or letter grading.

M231. Texts in Judeo-Arabic. (4) Same as Arabic M231.) Lecture, three hours. Requisites: course 102C, 103C, or equivalent knowledge of Hebrew. Study of Medieval Arabic texts by Malmonides (medieval religion, medicine, philosophy) and more recent texts in Judeo-Arabic dialects of Iraq and Egypt, with discussion of grammar and deviations from classical Arabic. S/U or letter grading.

235. Hebrew Literature of Second Temple Period. (4) Seminar, three hours. Designed for students who have basic language skills and capacities necessary for reading Biblical Hebrew or Rabbinic Hebrew. Reading, analysis, and interpretation of Hebrew literature composed during Second Temple period. Relevant sources include Chronicles, Ezra-Nehemiah, Ecclesiastes, Ben Siria, Daniel, Dead Sea Scrolls, and other documents from Judean desert, and various apocrypha and pseudopigrapha. Special attention to historical development of Hebrew language and literature in relation to both earlier biblical sources, styles, grammatical paradigms and to subsequent Rabbinic writings. Course builds following skills: reading unpointed texts, mastering distinctive elements of vocabulary, idiom, and syntax of Second Temple Hebrew, and analyzing relationships between biblical and postbiblical sources. May be repeated for credit. S/U or letter grading.

C240. Modern Hebrew Poetry and Prose. (4) Lecture, three hours. Requisites: courses 103A, 103B, and 103C, or equivalent knowledge of Hebrew. Study of major Hebrew writers of past 100 years. May be repeated for credit. Concurrently scheduled with course C140. Letter grading.


596. Directed Individual Study. (2 to 8) Tutorial, to be arranged. May be repeated for credit. S/U or letter grading.


Iranian Lower-Division Courses

1A—1B—1C. Elementary Persian. (5—5—5) Lecture, six hours. Course 1A is enforced requisite to 1B, which is enforced requisite to 1C. Not open to students with prior knowledge of Persian. P/N/P or letter grading.

5. Elementary Persian: Intensive. (15) Lecture, 10 hours; discussion, 10 hours. Not open to students who have learned, from whatever source, enough Persian to qualify for more advanced courses. Intensive course equivalent to courses 1A—1B—1C. Introduction to fundamentals of Persian, including pronunciation, grammar, and Persian script, with emphasis on all four basic language skills—speaking, listening comprehension, reading, and writing. Offered in summer only. P/N/P or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/N/P grading.

20A—20B—20C. Accelerated Elementary Persian. (6—6—6) Lecture, four hours; discussion two hours; lab work, 30 minutes per day. Preparation: some knowledge of spoken Persian. Course 20A is enforced requisite to 20B, which is enforced requisite to 20C. Intensive and thorough study of fundamental structure of Persian grammar; reading from a wide range of classical and modern poetry and prose compositions. P/N/P or letter grading.

55. Gender and Sexuality in Arts and Literatures of Iran and Middle East. (5) Lecture, three hours; discussion, one hour. Multidisciplinary introduction to Persian poetry, recognized as jewel of Persian culture, and to pictorial, architectural, performative, cinematographic, and photographic dimensions of artistic milieu spanning between Balkans, India, and Central Asia from 10th century CE to present. With consideration of centrality of discourses on identity, desire, and spirituality to core of Persian aesthetics, study of broad variety of socioanthropological, ethical and critical issues stemming from both mainstream topics characterizing extensive field of Iranian studies and most controversial conversations on nature of sexuality, ethnocity, and religion. P/N/P or letter grading.

M60. Achaemenid Civilization and Empire of Alexander. (8) Same as Ancient Near East M60 and History M60.) Lecture, three hours; discussion, one hour. Survey of period from circa 600 to 300 BCE, rise and fall of Achaemenid Persia, first world empire of antiquity, which was ended by Alexander the Great, whose campaigns were as transformative as they were violent. Alexander connected ancient Mediterranean and Near East as never before, ushering in new era and forever changing cultural landscape of ancient world. Focus on themes of ancient kingship and political ideology; comparative study of empires; administration and institutions; and religious and ethnic diversity in large, heterogeneous states. Emphasis on diversity critical to understanding political nuances of ancient world. Students gain broad understanding of Achaemenid and Macedonian empires, facility with ancient primary sources, and development of analytical skills central to discipline of history that allow conceptualizing issues of diversity and othering in ancient world. P/N/P or letter grading.

M60W. Achaemenid Civilization and Empire of Alexander. (8) Same as Ancient Near East M60W and History M60W.) Lecture, three hours; discussion, one hour. Requisite: English Composition 3. Not open for
credit to students with credit for course M60. Survey of period from circa 600 to 300 BCE, rise and fall of Achaemenid Persia, first world empire of antiquity, which was elonous states. Emphasis on diversity, critical to understanding political nuances of ancient world. Students gain broad knowledge of Achaemenid and Macedonian empires, facility with ancient primary sources, and critical historiographical competencies in the discipline of history that allow conceptualizing issues of diversity and relating in ancient world. Satisfies Writing II requirement. P/NP or letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be repeated for credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as a tutorial for individuals who do exceptionally well in course 20C. Preparation: knowledge of Persian not required. Each course may be taken independently for credit. P/NP or letter grading.

102A-102B-102C. Intermediate Persian. (5–5–5) Lecture, six hours. Requisite: course 1C or 20C. Course 102A is requisite to 102B, which is requisite to 102C. P/NP or letter grading.

103A-103B-103C. Advanced Persian. (4–4–4) Lecture, three hours. Requisite: course 102C. Students who do exceptionally well in course 20C may be permitted to enroll with consent of instructor. Emphasis on popular ethics that have helped shape normative social, cultural, and political values in Iranian civilization. May be repeated for credit with consent of instructor. P/NP or letter grading.

104. Philosophical Texts. (4) Lecture, three hours. Requisite: course 102C. Study of major philosophical themes in ontology, epistemology, psychology, and cosmology through texts, with study in detail. P/NP or letter grading.

105A. Bahá’í Faith in Iran: Historical and Sociological Survey. (4) (Same as Religion M105A) Lecture, three hours. Readings in English. Introduction to the Bahá’í faith in Iran and its development from the 19th century to the present. Emphasis on the Bahá’í movement in Iran, the political and social context in which it flourished, and the challenges it faced. P/NP or letter grading.

105B. Bahá’í Faith in Iran: Survey of Bahá’í Scriptures and Thought. (4) (Same as Religion M105B) Lecture, three hours. Readings in English. Focus on the development of Bahá’í and Bahá’í religions in context of 19th century Iran. Focus on personalities of Báb, Bahá’u’lláh, and ‘Abdu’lláh-Bahá. May be taken independently for credit. P/NP or letter grading.

105Cc. Bahá’í Faith in Iran: 20th-Century Iran and the Bahá’ís. (4) (Same as Religion M105Cc) Lecture, three hours. Readings in English. Focus on history of 20th-century Iran beginning with constitutional revolution, development and persecution of Bahá’í community, and latter’s relation to reform movements in Iran. May be taken independently for credit. P/NP or letter grading.


115A-115B-115C. Elementary Azeri. (4–4–4) (Same as Turkic Languages M115A-M115B-M115C.) Lecture, five hours. Knowledge of Russian, Turkish, and Iranian helpful. Grammatical competence at ele- mentary level; knowledge of basic facts of Azeri grammar; reading comprehension with help of dictionary; ability to write simple compositions; basic conversa- tional skill. P/NP or letter grading.

120. Comparative Study of Six Major Persian Poets. (4) Lecture, two hours; discussion, one hour. Preparation: knowledge of Persian. Lectures in Persian, read- ings in English. Comparative study of the six major Persian poets from 10th to 14th century who shaped sense of Persian identity and delineated chief distinguishing characteristics of Persian thought and culture. May be repeated for credit with consent of instructor. P/NP or letter grading.


131. Introduction to Jewish Studies. (4) Lecture, three hours: discussion, one hour. Preparation: knowledge of Persian. Lectures in Persian, readings in English. Introduction to Jewish Studies and focusing on the intellectual history of Jews in Iran. May be repeated for credit with consent of instructor. P/NP or letter grading.


140. Persian Belles Lettres (Adabiyyât). (4) Lecture, three hours. Enforced requisites: courses 102C, 131. Literary study of Persian literature, as segment of Iranian literary tradition. Emphasis on Persian literature in context of Iranian society and political conditions. May be repeated for credit with consent of instructor. P/NP or letter grading.

151. Persian Historical Writings. (4) Lecture, three hours. Preparation: knowledge of Persian. Lectures in Persian, readings in English. Study of Persian historical narratives, focusing on the Persian language and its role in historical writing. May be repeated for credit with consent of instructor. P/NP or letter grading.

152. Persian Popular Ethics. (4) Lecture, three hours. Requisite: course 102C. Study of Major Persian works on popular ethics that have helped shape normative social, cultural, and political values in Iranian civilization. May be repeated for credit with consent of instructor. P/NP or letter grading.

150A-150B. Survey of Persian Literature in English. (4) Lecture, two hours. Preparation: knowledge of Persian desirable. Course 102C required, which is requisite to 161B, which is requisite to 161C. Studies in grammars and texts of Middle Persian languages (e.g., Middle Per- sian, Parthian, Sogdian, Khotanese, Bactrian), may be repeated for credit with consent of instructor. P/NP or letter grading.

161A-161B-161C. Elementary Middle Persian. (4–4–4) Lecture, three hours. Preparation: knowledge of Persian. Lectures in Persian, readings in English and Persian. May be repeated for credit with consent of instructor. P/NP or letter grading.

CM163. Archaeology of Iran. (4) (Same as Ancient Near East CM163.) Lecture, three hours. Designed to introduce students to Iranian archaeology from prehis- toric through Achaemenid times. Concurrently sched- uled with course CM259. P/NP or letter grading.

164. Ancient Cities of Iran: Archaeological Survey of Historic Cities and Sites of Iran from 4000 BC to 1900 AD. (4) Lecture, four hours. Introduction to ar- chaological and historical monuments and sites of Iran from earliest periods to early 20th century. Exam- ination of emergence of early Iranian villages, forma- tion of cities and their spread, and expansion of empires throughout late Sasanian and early Islamic periods to preindustrial era in early years of past century. Study of selection of ancient Iranian sites and cities, from fifth millennium BC to Qajar period, based on relevant archaeological, historical, and geographical sources. Studies of archaeology and historical geography of each site or city with aerial views, which reveal rich array of architecture and town planning—from ordi- nary settlements and vernacular constructions to worldly-known royal and religious monuments. P/NP or letter grading.

169. Civilization of Pre-Islamic Iran. (4) Survey of Iranian culture from the beginning through Sasanian period.

170. Religion in Ancient Iran. (4) History of religion in Iran from the beginning to the Mohammadan con- quest; Indo-Iranian background, Zoroastrism, Man- lichaism, Mazdayasnamism.

M178. Introduction to History and Culture of Iranian Jews. (4) (Same as History M178 and Jewish Studies M178.) Lecture, three hours. Introduction to political, intellectual, cultural, and social history of various groups of Ira- nian Jews. Exploration of history of Iranian Jews from ancient period through history, with focus on post- Middle Ages to present time. Topics, studied from perspec- tives of Iranian cultural and intellectual history, in- clude identity and status, religious tolerance versus forced conversion, Iranian Jewish emancipation, and dynamic symbiosis between Iranian Jews and other Iranians. P/NP or letter grading.

187. Variable Topics in Iranian Studies. (4) Lecture, three hours. Variable topics; consult Schedule of Classes for topics to be offered in specific term. May be repeated for credit. P/NP or letter grading.

188FL. Special Studies: Readings in Iranian. (2) Seminar, two hours. Requisite: course 102C. Students must be concurrently enrolled in affiliated main course. Primary readings and advanced training in Ira- nian. Additional work in Iranian to enrich and augment work assigned in main course. Reading, writing, and other exercises in Iranian. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Preparation: knowledge of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be repeated for credit with consent of eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. De- signed as an adjunct to undergraduate course. Individual study with course lecture instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for credit with consent of instructor. P/NP or letter grading.

Near Eastern Languages and Cultures / 699
Maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

197. Individual Studies in Islamic Art. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigning reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

M221. Rumi, Mystic Poet of Islam. (4) May be taken independently for credit. Study of selected classical Persian texts. Each course three hours. Requisites: courses 103A, 103B, 103C. Study of selected classical Persian texts. Each course may be taken independently for credit.

221. Rumi, Mystic Poet of Islam. (4) Seminar, one hour. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

M210. Topics in Ancient Iranian History. (4) (Same as Ancient Near East M208 and History M210J) Seminar, three hours. Varying topics on Esfahite, Achaemenid, Arsacid, and Sassanian history. May be repeated for credit. S/U or letter grading.


231A-231B-231C. Advanced Middle Persian. (4-4-4) Lecture, three hours. Requisite: course 220A. Course 231A is requisite to 231B, which is requisite to 231C. Further studies in grammars and texts of Old Persian and Avestan. Comparative considerations. Only course 231B may be repeated for credit. S/U or letter grading.


231A-231B-231C. Advanced Middle Persian. (4-4-4) Lecture, three hours. Requisite: course 161C. Course 231A is requisite to 231B, which is requisite to 231C. Further studies in grammars and texts of Middle Iranian language of Old Persian, Parthian, Sogdian, Khotanese, Bactrian). May be repeated for credit with consent of instructor. S/U or letter grading.

250. Seminar: Classical Persian Literature. (4) Seminar, three hours. Requisite: consent of instructor. Courses 103A, 103B, 103C. 199. May be repeated twice for credit.


CM259. Archaeology of Iran. (4) (Same as Ancient Near East CM259) Lecture, three hours. Designed to introduce students to Iranian archaeology from prehistoric through Achaemenid times. Concurrently scheduled with course CM163. S/U or letter grading.

96. Directed Individual Study. (2 to 8) Tutorial, to be arranged. May be repeated for credit. S/U or letter grading.


Islamic Studies

Upper-Division Courses

CM107. Islam in West. (5) (Formerly numbered M107.) (Same as Arabic M107 and Religion M107J) Lecture, three hours; discussion, one hour. Acquisition of understanding of basic doctrines and practices of Islam. Survey of history of Islam in West, with focus on U.S. and France. Analysis of issues relevant to growth and development of selective Muslim communities in Western culture. Exposure to diverse expressions of Islam through independent research on Muslim communities and institutions in U.S. Development of strong analytical writing skills. Concurrently scheduled with course C207. P/NP or letter grading.

M111. Introduction to Islamic Archaeology. (4) (Same as Art History M119C and Middle Eastern Studies M111J) Lecture, three hours. From earliest monuments of Islamic civilization to humble remains of small Egyptian port, broad focus on archaeological and standing remains in central Islamic lands (primarily Syria, Egypt, and Iraq), Turkey, Iran, North Africa, and Spain. Profound cultural transformations occurred from birth of Islam in 7th century to early Ottoman period in 16th and 17th centuries, which are traceable in material records. Assessment of effectiveness of tools afforded by historical archaeology to aid understanding of past societies. P/NP or letter grading.

CM115. Islam and Other Religions. (5) (Formerly numbered M115J) (Same as Religion M115J) Lecture, three hours; discussion, one hour. Students gain familiarity with basic history and culture and methods of interaction between Muslims and non-Muslims in plural societies. Consideration of axis questions such as how does Qur'an reflect religious plurality; how does it situate Muslim Islam vis-a-vis its alternatives; what encounters did rapid expansion of Islam bring about in diverse societies; how did Islam and other religions change through debate, war, and exchange of ideas; what has historical power played in interreligious competition; how have conversion and hybridity affected what it means to be Muslim; what is different about interreligious interactions in secular states and how is religion viewed in different countries and policies today. Investigation of these questions by conducting microstudies: close readings of sources through theoretical lens. Concurrently scheduled with course C215. P/NP or letter grading.

130. Shi’a in Islamic History. (4) Seminar, three hours; discussion, one hour. Rise and development of Shi’a Islam, its doctrines, and practices; major branches: Twelvers, Ismailis, Zaydis; their contribution to Islamic thought and civilization; modern trends of reinterpretation and reform. Letter grading.

C151. Islamic Thought. (4) (Formerly numbered 151J) Lecture, three hours. Recommended requisite: introductory course on Islam or instructor consent. Introduction to major fields of inquiry and debate in Islamic studies (e.g., exegesis, Hadith, law, theology, Sufism). Focus on selected topics of debate such as nature of Islamic law, God, jihad, hijab, or pilgrimage. Concurrently scheduled with course C215. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. Letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. Letter grading.

197. Individual Studies in Islamic Studies. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

199. Directed Research or Senior Project in Islamic Studies. (2 to 4) Tutorial, to be arranged. May be repeated for credit. Individual contract required. P/NP or letter grading.
Graduate Courses

200. Introduction to Islamic Studies. (4) Seminar, three hours. Introduction to various disciplines and methods employed in study of Islamic histories, cultures, and institutions with emphasis on methodological and current theories and how they may be used and combined by Islamic studies students. Content varies each year. Letter grading.


215. Islamic and Other Religions. (4) Lecture, three hours; discussion, one hour. Students gain familiarity with historical cases and modes of interaction between Muslims and non-Muslims in plural societies. Consideration of axis questions such as how does Qur’an reflect religious pluralism; how does it situate the evolution of Islamic law and social traditions? How did Islam and other religions change and change the world? P/NP or letter grading.

216. Islamic and Other Religions. (5) Seminar, three hours. Examination of how Islamic legal traditions have evolved over time and how they continue to shape contemporary society. The seminar will focus on the development of Islamic legal traditions, their interaction with other religious traditions, and their impact on contemporary society. Concurrently scheduled with course CM107. Letter grading.

221A. Jewish Thought. (4) Lecture, two hours; discussion, one hour. Introduction to Jewish thought and its historical development, focusing on key figures and movements. Concurrently scheduled with course CM107. S/U or letter grading.

221B. Jewish Thought. (4) Lecture, two hours; discussion, one hour. Continuation of study of Jewish thought, focusing on later developments and contemporary issues. Concurrently scheduled with course CM107. S/U or letter grading.

221C. Jewish Thought. (4) Lecture, two hours; discussion, one hour. Further exploration of Jewish thought and its historical development, focusing on key figures and movements. Concurrently scheduled with course CM107. S/U or letter grading.

221D. Jewish Thought. (4) Lecture, two hours; discussion, one hour. Advanced study of Jewish thought and its historical development, focusing on key figures and movements. Concurrently scheduled with course CM107. S/U or letter grading.

222A. Jewish Thought. (4) Lecture, two hours; discussion, one hour. Advanced study of Jewish thought and its historical development, focusing on key figures and movements. Concurrently scheduled with course CM107. S/U or letter grading.

222B. Jewish Thought. (4) Lecture, two hours; discussion, one hour. Advanced study of Jewish thought and its historical development, focusing on key figures and movements. Concurrently scheduled with course CM107. S/U or letter grading.

222C. Jewish Thought. (4) Lecture, two hours; discussion, one hour. Advanced study of Jewish thought and its historical development, focusing on key figures and movements. Concurrently scheduled with course CM107. S/U or letter grading.

222D. Jewish Thought. (4) Lecture, two hours; discussion, one hour. Advanced study of Jewish thought and its historical development, focusing on key figures and movements. Concurrently scheduled with course CM107. S/U or letter grading.

223A. Jewish Thought. (4) Lecture, two hours; discussion, one hour. Advanced study of Jewish thought and its historical development, focusing on key figures and movements. Concurrently scheduled with course CM107. S/U or letter grading.

223B. Jewish Thought. (4) Lecture, two hours; discussion, one hour. Advanced study of Jewish thought and its historical development, focusing on key figures and movements. Concurrently scheduled with course CM107. S/U or letter grading.

223C. Jewish Thought. (4) Lecture, two hours; discussion, one hour. Advanced study of Jewish thought and its historical development, focusing on key figures and movements. Concurrently scheduled with course CM107. S/U or letter grading.

223D. Jewish Thought. (4) Lecture, two hours; discussion, one hour. Advanced study of Jewish thought and its historical development, focusing on key figures and movements. Concurrently scheduled with course CM107. S/U or letter grading.

224A. Jewish Thought. (4) Lecture, two hours; discussion, one hour. Advanced study of Jewish thought and its historical development, focusing on key figures and movements. Concurrently scheduled with course CM107. S/U or letter grading.

224B. Jewish Thought. (4) Lecture, two hours; discussion, one hour. Advanced study of Jewish thought and its historical development, focusing on key figures and movements. Concurrently scheduled with course CM107. S/U or letter grading.

224C. Jewish Thought. (4) Lecture, two hours; discussion, one hour. Advanced study of Jewish thought and its historical development, focusing on key figures and movements. Concurrently scheduled with course CM107. S/U or letter grading.

224D. Jewish Thought. (4) Lecture, two hours; discussion, one hour. Advanced study of Jewish thought and its historical development, focusing on key figures and movements. Concurrently scheduled with course CM107. S/U or letter grading.

225A. Jewish Thought. (4) Lecture, two hours; discussion, one hour. Advanced study of Jewish thought and its historical development, focusing on key figures and movements. Concurrently scheduled with course CM107. S/U or letter grading.

225B. Jewish Thought. (4) Lecture, two hours; discussion, one hour. Advanced study of Jewish thought and its historical development, focusing on key figures and movements. Concurrently scheduled with course CM107. S/U or letter grading.

225C. Jewish Thought. (4) Lecture, two hours; discussion, one hour. Advanced study of Jewish thought and its historical development, focusing on key figures and movements. Concurrently scheduled with course CM107. S/U or letter grading.

225D. Jewish Thought. (4) Lecture, two hours; discussion, one hour. Advanced study of Jewish thought and its historical development, focusing on key figures and movements. Concurrently scheduled with course CM107. S/U or letter grading.

226A. Jewish Thought. (4) Lecture, two hours; discussion, one hour. Advanced study of Jewish thought and its historical development, focusing on key figures and movements. Concurrently scheduled with course CM107. S/U or letter grading.

226B. Jewish Thought. (4) Lecture, two hours; discussion, one hour. Advanced study of Jewish thought and its historical development, focusing on key figures and movements. Concurrently scheduled with course CM107. S/U or letter grading.

226C. Jewish Thought. (4) Lecture, two hours; discussion, one hour. Advanced study of Jewish thought and its historical development, focusing on key figures and movements. Concurrently scheduled with course CM107. S/U or letter grading.

226D. Jewish Thought. (4) Lecture, two hours; discussion, one hour. Advanced study of Jewish thought and its historical development, focusing on key figures and movements. Concurrently scheduled with course CM107. S/U or letter grading.

227A. Jewish Thought. (4) Lecture, two hours; discussion, one hour. Advanced study of Jewish thought and its historical development, focusing on key figures and movements. Concurrently scheduled with course CM107. S/U or letter grading.

227B. Jewish Thought. (4) Lecture, two hours; discussion, one hour. Advanced study of Jewish thought and its historical development, focusing on key figures and movements. Concurrently scheduled with course CM107. S/U or letter grading.

227C. Jewish Thought. (4) Lecture, two hours; discussion, one hour. Advanced study of Jewish thought and its historical development, focusing on key figures and movements. Concurrently scheduled with course CM107. S/U or letter grading.

227D. Jewish Thought. (4) Lecture, two hours; discussion, one hour. Advanced study of Jewish thought and its historical development, focusing on key figures and movements. Concurrently scheduled with course CM107. S/U or letter grading.

228A. Jewish Thought. (4) Lecture, two hours; discussion, one hour. Advanced study of Jewish thought and its historical development, focusing on key figures and movements. Concurrently scheduled with course CM107. S/U or letter grading.

228B. Jewish Thought. (4) Lecture, two hours; discussion, one hour. Advanced study of Jewish thought and its historical development, focusing on key figures and movements. Concurrently scheduled with course CM107. S/U or letter grading.

228C. Jewish Thought. (4) Lecture, two hours; discussion, one hour. Advanced study of Jewish thought and its historical development, focusing on key figures and movements. Concurrently scheduled with course CM107. S/U or letter grading.

228D. Jewish Thought. (4) Lecture, two hours; discussion, one hour. Advanced study of Jewish thought and its historical development, focusing on key figures and movements. Concurrently scheduled with course CM107. S/U or letter grading.

229A. Jewish Thought. (4) Lecture, two hours; discussion, one hour. Advanced study of Jewish thought and its historical development, focusing on key figures and movements. Concurrently scheduled with course CM107. S/U or letter grading.

229B. Jewish Thought. (4) Lecture, two hours; discussion, one hour. Advanced study of Jewish thought and its historical development, focusing on key figures and movements. Concurrently scheduled with course CM107. S/U or letter grading.

229C. Jewish Thought. (4) Lecture, two hours; discussion, one hour. Advanced study of Jewish thought and its historical development, focusing on key figures and movements. Concurrently scheduled with course CM107. S/U or letter grading.

229D. Jewish Thought. (4) Lecture, two hours; discussion, one hour. Advanced study of Jewish thought and its historical development, focusing on key figures and movements. Concurrently scheduled with course CM107. S/U or letter grading.

230A. Jewish Thought. (4) Lecture, two hours; discussion, one hour. Advanced study of Jewish thought and its historical development, focusing on key figures and movements. Concurrently scheduled with course CM107. S/U or letter grading.

230B. Jewish Thought. (4) Lecture, two hours; discussion, one hour. Advanced study of Jewish thought and its historical development, focusing on key figures and movements. Concurrently scheduled with course CM107. S/U or letter grading.

230C. Jewish Thought. (4) Lecture, two hours; discussion, one hour. Advanced study of Jewish thought and its historical development, focusing on key figures and movements. Concurrently scheduled with course CM107. S/U or letter grading.

230D. Jewish Thought. (4) Lecture, two hours; discussion, one hour. Advanced study of Jewish thought and its historical development, focusing on key figures and movements. Concurrently scheduled with course CM107. S/U or letter grading.

231A. Jewish Thought. (4) Lecture, two hours; discussion, one hour. Advanced study of Jewish thought and its historical development, focusing on key figures and movements. Concurrently scheduled with course CM107. S/U or letter grading.

231B. Jewish Thought. (4) Lecture, two hours; discussion, one hour. Advanced study of Jewish thought and its historical development, focusing on key figures and movements. Concurrently scheduled with course CM107. S/U or letter grading.

231C. Jewish Thought. (4) Lecture, two hours; discussion, one hour. Advanced study of Jewish thought and its historical development, focusing on key figures and movements. Concurrently scheduled with course CM107. S/U or letter grading.

231D. Jewish Thought. (4) Lecture, two hours; discussion, one hour. Advanced study of Jewish thought and its historical development, focusing on key figures and movements. Concurrently scheduled with course CM107. S/U or letter grading.

232A. Jewish Thought. (4) Lecture, two hours; discussion, one hour. Advanced study of Jewish thought and its historical development, focusing on key figures and movements. Concurrently scheduled with course CM107. S/U or letter grading.

232B. Jewish Thought. (4) Lecture, two hours; discussion, one hour. Advanced study of Jewish thought and its historical development, focusing on key figures and movements. Concurrently scheduled with course CM107. S/U or letter grading.
order to decipher features and functions of magic, mysticism, and apocalypse in antiquity and modernity. P/NP or letter grading.

M162. Israel Seen through Its Literature. (4) Same as Comparative Literature M162.) Lecture, three hours. Attempt to impart profound understanding of Israel as seen through its literature. Examination of variety of literary texts—stories, novels, and poems—and reading them in context of their historical backgrounds. P/NP or letter grading.


175. Modern Israeli Literature Made into Films. (5) Lecture, four hours; discussion, one hour. Reading, analysis, and discussion of modern Israeli literature that was made into films, including literary works of prominent Israeli authors (S. Yizhar, A.B. Yehoshua, Amos Oz, and Yitzhak Ben Ner) that were translated to English and had filmic adaptations. Letter grading.

177. Variable Topics in Jewish Studies. (4) Lecture, three hours. Variable topics; consult Schedule of Classes for topics to be offered in specific term. May be repeated for credit. P/NP or letter grading.

178. Introduction to History and Culture of Iranian Jews. (4) (Same as History M179 and Iran M178.) Lecture, three hours. Introduction to political, intellectual, cultural, and socioeconomic status of Iranian Jews. Exploration of history of Iranian Jews from ancient period to focus on Iran Jews in Middle Ages to present time. Topics, studied from perspective of Iranian cultural and intellectual history, include identity and status, religious tolerance versus forced conversion, Iranian Jewish emigration, and dynamic symbiosis between Iranian Jews and other Iranians, P/NP or letter grading.

M181. Topics in Jewish History. (4) (Same as History M181.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. History of Los Angeles, with special emphasis on Jewish role. Jews have played in shaping Los Angeles and role that Los Angeles has played in reshaping of Jewish identities, communities, and cultures. Exploration of themes related to regionalism in American Jewish experience, comparative immigration and migration patterns, and frontiers and borders, while providing overview of historical methodologies and interpretation. Examination of ethical and methodological assumptions of writing history in digital age and learning how to read and analyze these new media works as primary and secondary historical texts. Opportunity to contribute to body of historical work related to Los Angeles Jewish history through required service work with community partners and development of digital public history projects. P/NP or letter grading.

M182A. Ancient Jewish History. (4) (Same as History M182A and Religion M182A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of social, political, and religious developments. P/NP or letter grading.

M182B. Modern Jewish History I. (4) (Same as History M182B and Religion M182B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Exploration of unfolding of Jewish history from rise of Christianity to expulsion of Jews from Spain in 1492. P/NP or letter grading.

M182C. Modern Jewish History. (4) (Same as History M182C.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of early modern Jewish history beginning with enormous repercussions of expulsion of Jews from Spain in 1492, followed by transformations in Jewish society and identity over five centuries in Europe and Middle East, and concluding with nationalism. P/NP or letter grading.

M184A. Jewish Civilization: Encounter with Great World Cultures. (4) (Same as History M184A and Religion M184A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Exploration of dynamic and millennia-old interaction of Jews with great world cultures. Creative adaptations that have lent Jewish culture its distinct and various forms. P/NP or letter grading.

M184B. History of Zionism and State of Israel. (4) (Same as History M184B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Experience of Jews in America, both historical and contemporary. P/NP or letter grading.

M184D. History of Zionism and State of Israel. (4) (Same as History M184D.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of history of State of Israel from 1948 to present. P/NP or letter grading.

M187. Holocaust in Literature. (4) (Same as Comparative Literature M165.) Lecture, three hours. Investigation of how Holocaust informs variety of literary and cinematic works and raises wide range of aesthetic and moral questions. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Independent study with course lecture instructor to explore topics of greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

191. Variable Topics Research Seminars: Jewish Studies. (4) Seminar, three hours. Research seminar on selected topics. Reading, discussion, and development of project required. May be repeated for credit. P/NP or letter grading.

197. Individual Studies in Jewish Studies. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. As signed reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

199. Directed Research or Senior Project in Jewish Studies. (2 to 4) Tutorial, one hour. Limited to juniors/ seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Course


Upper-Division Courses

M111. Introduction to Islamic Archaeology. (4) (Same as History M111.) Lecture, three hours. From earliest monuments of Islam in Arabia and Jerusalem to humble remains of small Egyptian port, broad focus on archaeological and standing remains in central Islamic lands (primarily Syria, Egypt, and Iraq, Turkey, Iran, North Africa, and Spain). Profound cultural transformations occurred from birth of Islam in 7th century to early Ottoman period in 16th and 17th centuries, which are traceable in material records. Assessment of effectiveness of tools afforded by historical archaeology to aid understanding of past societies. P/NP or letter grading.

M112. Archaeology and Art of Christian and Islamic Egypt. (4) (Same as Archaeology M112, Art History M119D, and Islamic Studies M112.) Lecture, three hours. Culture of Egypt transformed gradually after Muslim conquest of Egypt in 642 AD, with indications to material evidence such as ceramics, textiles, architectural forms, and building techniques, it is functionally impossible to separate pre-Islamic Christian Egypt from early Islamic Egypt. Although population may have become largely Muslim by 10th century, Egypt remained Coptic in many senses even to 14th century and retains sizeable Christian minority to present. Some architectural, epigraphic, and artistic traditions of archi- tecture of Egypt from 6th to 19th century, charting changes and continuities in material culture and shifts in human geography and land use. P/NP or letter grading.

Middle Eastern Studies Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of a critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP or letter grading.

M50A. First Civilizations. (5) (Same as Ancient Near East M50A.) Lecture, three hours; discussion, one hour. Survey of great civilizations of ancient Near East—Egypt, Israel, and Mesopotamia—with attention to emergence of writing, monotheism, and urban societies. Letter grading.

M50B. Origins of Judaism, Christianity, and Islam. (5) (Same as Ancient Near East M50B and Religion M50B.) Lecture, three hours; discussion, one hour. Examination of three major monotheisms of Western cultures—Judaism, Christianity, and Islam—historically and comparatively. Development, teachings, and ritual practices of each tradition up to and including medi- eval period. Composition and development of various sacred texts, highlighting key themes and ideas within different historical and literary strata of traditions, such as narratives of revelation, concept of religious authority, and common theological issues such as origin of evil and status of nonbelievers. Letter grading.

M50CW. Making and Studying Modern Middle East. (5) (Same as Anthropology M50W.) Lecture, three hours; discussion, one hour. Requisite: English Composition 3. Survey of modern Middle Eastern cultures through readings and films from Middle East and North Africa. Satisfies Writing II requirement. Letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics of greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.
May be applied toward honors credit for eligible stu-
dents. Honors content noted on transcript. P/NP or letter grading.

169HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. De-
signed as adjunct to upper-division lecture course. In-
dividual study with lecture course instructor to explore topics in greater depth through supplemental read-
ings, papers, oral activities, or other activities. May be repeated for credit. P/NP grading.

200. Bibliography and Method of Near Eastern Lan-
guages and Literatures. (4) Lecture, two hours. Re-
troduction to the bibliography and methods of research in vari-
ous fields of Near Eastern studies. P/NP or letter grading.

201. Study of Religion: Theory and Method. (4) Sem-
nar, three hours. Preparation: familiarity with at least two major world religions. Designed for advanced un-
dergraduate and graduate students. Introduction to various theoretical approaches to the study of religion. In 
discover how to develop a strong research component as an honors student in the College Honors Program. As 
designed as adjunct to upper-division lecture course. Independent study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be repeated for honors credit for eligible stud-
dents. Honors content noted on transcript. P/NP or letter grading.

90HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. De-
signed as adjunct to lower-division lecture course. In-
dividual study with lecture course instructor to explore topics in greater depth through supplemental read-
ings, papers, or other activities. May be repeated. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (su-
upervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-
division students under guidance of faculty mentor. Students must be in good academic standing and en-
rolled in a minimum of 15 units per semester. Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Near Eastern Languages and Cultures / 703

Near Eastern Languages

201. Study of Religion: Theory and Method. (4) Seminar, three hours. Preparation: familiarity with at least two major world religions. Designed for advanced under-
dergraduate and graduate students. Introduction to various theoretical approaches to the study of religion. In 
discover how to develop a strong research component as an honors student in the College Honors Program. As 
designed as adjunct to upper-division lecture course. Independent study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be repeated for honors credit for eligible stud-
dents. Honors content noted on transcript. P/NP or letter grading.

200. Bibliography and Method of Near Eastern Lan-
guages and Literatures. (4) Lecture, two hours. Re-
troduction to the bibliography and methods of research in vari-
ous fields of Near Eastern studies. P/NP or letter grading.
Seminics

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

199. Directed Research or Senior Project in Seminics. (2 to 4) Tutorial, one hour. Limited to seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses


215B. Syriac. (4) Lecture, two hours. Morphology and syntax of Syriac language; readings in Syriac translations of Bible and Syriac literature. May be repeated for credit. S/U or letter grading.


239. Seminar on Northwest Semitic Languages and Literatures. (4) Seminar, two hours. May be repeated for credit. S/U or letter grading.

240. Seminar: Akkadian Language. (4) Seminar, two hours. Readings of texts from various dialects of Akkadian; selected problems in linguistic analysis of Akkadian dialects. May be repeated for credit. S/U or letter grading.

240X. Seminar: Akkadian Language. (4) Seminar, two hours. Readings of texts from various dialects of Akkadian; selected problems in linguistic analysis of Akkadian dialects. Course for students who participate regularly in class meetings but without the homework required in course 240. May be repeated for credit. S/U grading.

241. Seminar: Akkadian Literature. (4) Seminar, two hours. Readings of texts from various Akkadian literary genres; selected problems in literary history and stylistic analysis. May be repeated for credit. S/U or letter grading.

280A. Seminar: Comparative Semitics. (4) Seminar, two hours. S/U or letter grading.

596. Directed Individual Study. (2 to 8) Tutorial, to be arranged. May be repeated for credit. S/U or letter grading.


Turkic Languages

Lower-Division Courses

18. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

199. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

199H. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designated as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

199H. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designated as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

199H. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designated as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

199H. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designated as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

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May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

101A-101B-101C. Elementary Turkish. (5–5–5) Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

101A-101B-101C. Elementary Turkish. (5–5–5) Lecture, five hours. Course 101A is requisite to 101B, which is requisite to 101C. Grammar; reading, conversation, and elementary composition drills. P/NP or letter grading.


111A-111B-111C. Elementary Uzbek. (4–4–4) Lecture, three hours; laboratory, two hours. Elementary grammar, reading, and composition exercises; elementary conversation.

112A-112B-112C. Advanced Uzbek. (4–4–4) Lecture, three hours; laboratory, two hours. Descriptive Uzbek grammar, reading, and analysis of Uzbek literary and folkloric texts. High-style composition and conversation.

M115A-M115B-M115C. Elementary Azeri. (4–4–4) (Same as Iranian M115A-M115B-M115C.) Lecture, five hours. Knowledge of Russian, Turkish, and Iranian helpful. Grammatical competence at elementary level; knowledge of basic facts of Azeri grammar; reading competence with help of dictionary; ability to write simple compositions; basic conversational skill. P/NP or letter grading.


160. Turkish Tradition. (4) Lecture/discussion. Preparation: entrance examination. Survey of cultural history of the Turks, as seen primarily through their literature, from their early history to the present.

165. Islamic Literary Heritage of Central Asia. (4) Lecture, two hours; discussion, one hour. Systematic survey of Islamic documents produced in Turkish and Persian in Central Asia, with reading of primary sources. English translation. Study of special characteristics of Central Asian Islam.


189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

197. Individual Studies in Turkic. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

199. Directed Research or Senior Project in Turkic. (2 to 4) Tutorial, to be arranged. S/U grading.

Graduate Courses

210A. Readings in Ottoman I. (4) Lecture, three hours. Examination of printed texts in Ottoman from 19th and 20th centuries to improve student competence to read, transliterate, and translate Ottoman texts. Readings include selections from newspapers, almanacs, travel books, and literary and historical texts. S/U or letter grading.


596. Directed Individual Study. (2 to 8) Tutorial, to be arranged. May be repeated for credit. S/U or letter grading.


**NEUROBIOLOGY**

David Geffen School of Medicine
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Neurobiology
310-825-8153
Department e-mail
Paul E. Mivechv, PhD, Chair
James W. Bisley, PhD, Vice Chair
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Felix E. Schweizer, PhD, Vice Chair, Education

**Overview**

The Department of Neurobiology is a premier research department and a leading force in neuroscience discovery and education at UCLA and worldwide. Department faculty with diverse research backgrounds in cellular and molecular biology, psychology, and engineering; utilize the most sophisticated technologies available to work in concert with colleagues throughout UCLA and the world to enhance the understanding of the brain and its role in health and disease.

**Neurobiology faculty information** is available from the department.

**Medical History**

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

107A-107B. Historical Development of Medical Sciences. (4–4) Lecture, three hours. Major contributions of medical and medical personalities from earliest times. P/NP or letter grading. 107A. Contributions of medicine and medical personalities from earliest times through 1650. 107B. Subject in the period from 1650 through the 19th century. Illustrated lectures, class discussion, and required readings from selected texts.

M169. History of Neurosciences. (4) (Same as Neurobiology M169.) Lecture, one hour; discussion, two hours. Development of neurosciences, especially neuroanatomy and neurophysiology, from Enlightenment era through latter 20th century. Emphasis on fundamental nerve functions, cell communication, and technological, conceptual, and cultural influences that have shaped understanding of brain and nervous system. P/NP or letter grading.

Graduate Course

596. Directed Individual Studies in Medical History. (2 to 12) Tutorial, to be arranged. Investigation of subjects in medical history selected by students with advice and direction of instructor. Individual reports and conferences. S/U or letter grading.

Neurobiology

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

M169. History of Neurosciences. (4) (Same as Medical History M169.) Lecture, one hour; discussion, two hours. Development of neurosciences, especially neuroanatomy and neurophysiology, from Enlightenment era through latter 20th century. Emphasis on fundamental nerve functions, cell communication, and technological, conceptual, and cultural influences that have shaped understanding of brain and nervous system. P/NP or letter grading.
neurological, conceptual, and cultural influences that have shaped understanding of brain and nervous system. P/NP or letter grading.

M171. Variable Topics Research Seminars: Contemporary Biology. (2) Same as Physiological Science M171.) Seminar, two hours. Limited to undergraduate fellows in Integrated and Interdisciplinary Undergraduate Research Program. Presentations of scientific data from primary research articles and from students’ own research. May be repeated for credit. P/NP grading.

197. Individual Studies in Neurobiology. (2 to 4) Tutorial, to be arranged. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned readings and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

199. Directed Research in Neurobiology. (2 to 8) Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Studies in neuroscience and related subject areas appropriate for training of particular students, which includes reading assignments or laboratory work leading to final oral or written report. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

M200F. Cellular Neurophysiology. (4) (Same as Neuroscience M202 and Physiological Science M202.) Lecture, three hours; discussion, two hours. Required: Physiological Science 111A or 118B or Physics 11B. Advanced course in cellular physiology of neurons. Action and membrane potentials, channels and channel blockers, gates, ion pumps and neuronal homeostasis, synaptic receptors, drug-receptor interactions, transmitter release, modulation by second messengers, and sensory transduction. Letter grading.

M200G. Biology of Learning and Memory. (4) (Same as Neuroscience M220 and Psychology M208.) Lecture, four hours. Molecular, cellular, circuit, systems, neuroanatomy, theory, and models of learning and memory. Cross-disciplinary focus on learning and memory to provide integrative view of subject that emphasizes connections and findings that take advantage of novel groundbreaking models. Letter grading.

225. Functional Organization of Visual System. (2) Seminar, three hours. Preparation: basic neuroscience course. Recommended: neuroanatomy, neurophysiology, and/or neural systems courses. Designed for neuroscientists, cell biologists, and psychologists. Basic organizational, physiological, and functional principles of visual system and how visual information is processed at different levels of nervous system. Structure, microcircuitry organization and function of retina, central visual nuclei, and primary cortical areas mediating visual behavior. S/U or letter grading.


270. Joint Seminar: Neuroscience Lectures. (1) Seminar, one hour. Formal lectures on current research topics in neuroscience by speakers from national, international, and local neuroscience communities. S/U grading.

NEUROLOGY

David Geffen School of Medicine
C-153 Reed Neurological Research Center
Box 951769
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Neurology
310-825-5521

S. Thomas Carmichael, Jr., MD, PhD, Chair
Christopher DeGiorgio, MD, Vice Chair, Olive View-UCLA
Charles C. Flippen II, MD, Vice Chair, Education
Jason D. Hinman, MD, PhD, Vice Chair, Research
Mario F. Mendez, MD, PhD, Vice Chair, VA Greater Los Angeles Healthcare System
P. Leia Ngheimphu, MD, Vice Chair, Academic Affairs
Martina H. Wiedau, MD, Vice Chair, Clinical Affairs
Jeffrey L. Saver, MD, Senior Associate Vice Chair, Clinical Research

Overview

Neurology is the medical science dealing with the normal and diseased nervous system. Neurological disorders are often associated with significant disability, morbidity, and mortality. Their higher incidence in association with greater longevity of the population, increased awareness, improved diagnostic methods, and other factors place neurological disorders among the major medical problems today. The Department of Neurology and the Reed Neurological Research Center provide a coordinated basic science and clinical research approach to neurological disorders, patient care, and neurological education.

The department instructs medical students throughout the four years. Emphasis in the first year is on basic aspects of neuroanatomy, chemistry, and physiology; in the second year, neurological history taking and neurological examination of afflicted patients are stressed. The third year consists of a clerkship, and the fourth year provides electives in neurology, including an advanced clinical clerkship.

Graduate students and postdoctoral candidates are trained in both the basic and clinical laboratories.

For more details on the Department of Neurology and courses offered, see the department website.

Neurology faculty information is available from the department.

Neurology

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors College 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SB. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced requisite: course 188SA. Enforced corequisite: Honors College 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to finalize course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced requisite: course 188SB. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE 88S course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

219. Directed Research in Neurology. (2 to 8) Tutorial, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper required. May be repeated for credit. Individual contract required. P/NP or letter grading.

NEUROSCIENCE, UNDERGRADUATE

Interdepartmental Program
College of Letters and Science
1321 Gonda Center
Box 951761
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Scott H. Chandler, PhD (Integrative Biology and Physiology)
David L. Glanzman, PhD (Integrative Biology and Physiology, Neurobiology)
Paul E. Micevych, PhD (Neurobiology)
Patricia E. Phelps, PhD (Integrative Biology and Physiology)
Mayumi L. Prins, PhD (Neurosurgery)
Kate M. Wassum, PhD (Psychology)
Stephanie A. White, PhD (Integrative Biology and Physiology)

Overview
Neuroscience seeks to understand the brain in health and in disease. Topics of fundamental interest include perception, cognition, learning, memory, motor control, and regulation of body function. The undergraduate interdepartmental program seeks to explore the principles and concepts of this broad range of nervous system function at many levels of analysis, including molecular, cellular, synaptic, network, computational, and behavioral.

Information on the graduate program in this discipline can be found in the Neuroscience graduate interdepartmental program section.

Undergraduate Major
Neuroscience BS

Capstone Major
The Neuroscience major is a designated capstone major. Undergraduate students have the option of conducting two terms of independent research within a faculty laboratory, applying to participate in Project Brainstorm or DOPA-Team, or completing an advanced laboratory methods course with a series of research modules. Through their capstone work, students demonstrate ability to generate testable scientific hypotheses and develop a research plan to test such hypotheses; work on research projects independently and in small groups; evaluate and discuss primary literature and the validity of hypotheses generated by others; communicate effectively orally and in writing; and demonstrate creative thinking.

Learning Outcomes
The Neuroscience major has the following learning outcomes:

- Generation of testable scientific hypotheses and development of a research plan to test such hypotheses
- Work on research projects independently and in small group settings
- Evaluation and discussion of primary literature
- Evaluation of the validity of hypotheses
- Effective written and oral communication
- Demonstrated creative thinking

Entry to the Major
Transfer Students
Transfer applicants to the Neuroscience major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of general biology with laboratory, one year of organic chemistry, one year of general chemistry with laboratory, and one statistics course. A second semester of organic chemistry or one year of calculus-based physics is strongly recommended but not required for admission.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements
Preparation for the Major

Life Sciences Core Curriculum
Required: Chemistry and Biochemistry 14A, 14B, 14BL, 14C, 14CL, and 14D, or 20A, 20B, 20L, 30A, 30AL, 30B, and 30BL; Life Sciences 7A, 7B, 7C, 23L; Life Sciences 30A, 30B, and 40 or Statistics 13, or Mathematics 3A, 3B, 3C, and Statistics 10 or 13, or Mathematics 31A or 31AL, 31B, 32A, and Statistics 10 or 13; Physics 1A, 1B, 1C, 4AL, and 4BL, or 6A, 5B, and 5C.

The Major
The Neuroscience major consists of 10 courses (approximately 43 units). Consult respective department or program sections for course descriptions.

Required Core: Neuroscience M101A (with grade of C– or better), M101B, M101C, 102, Chemistry and Biochemistry 153A. Physiological Science 111A and Psychology 115 cannot be substituted for Neuroscience M101A.

Elective Options: One course from each of the following three options:


Capstone Research Options: (1) Neuroscience 101L, M116A, Psychology M116A, or 116B, (2) Neuroscience C177 and 192CX (for DOPA-Team) or two quarters of Neuroscience 192BX (for Project Brainstorm), or (3) Neuroscience 198A and 198B, or 199A and 199B.

Honors Program
The honors program provides exceptional Neuroscience majors with the opportunity to do research culminating in an honors thesis.

Polices
Preparation for the Major
Each core curriculum course must be passed with a grade of C– or better, and all courses must be completed with an overall grade-point average of 2.0 or better. Students receiving grades below C– in two core curriculum courses, either in separate courses or repetitions of the same course, are subject to dismissal from the major.

The Major
No more than eight courses may be from any one department. A maximum of 8 units of Neuroscience 198 or 199 in any combination may be applied toward the major. Each course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in all upper-division courses taken for the major.

Capstone
Students who select the Neuroscience 101L, M116A, Psychology M116A, or 116B capstone research option must take four upper-division electives, with at least one from each of the three elective options. Students who select the Neuroscience C177 and 192CX, two quarters of 192BX, 198A and 198B, or 199A and 199B options must take three upper-division electives, one from each elective option.

Honors Program
Majors who have completed all preparation courses with a grade-point average of 3.0 or better and an overall GPA of 3.2 or better may apply for admission to the honors program. Applications and program requirements are available in the Neuroscience Undergraduate Office. Students must submit the application before beginning their upper-division honors requirements. After completion of all requirements and with the recommendation of the faculty sponsor and a second reader of the thesis, the chair confers honors at graduation.

Undergraduate Minor
Neuroscience Minor
The Neuroscience minor is designed to allow students in other majors an opportunity to explore the interdisciplinary field of neuroscience in a structured and rigorous way, while pursuing a major field of study in another discipline at the same time.

Admission
To enter the minor, students must have an overall grade-point average of 2.0 or better and a 2.5 GPA in the requisite courses for Neuroscience M101A and M101B.

The Minor
Nonscience majors wishing to minor in Neuroscience should be aware that preparation courses in chemistry, life sciences, and physics are requisites to the upper-division course requirements.
Required Upper-Division Courses (approximately 31 units): Neuroscience M101A (with grade of C– or better), M101B, M101C (5 units each) and four elective courses selected from 101L, 102, 199A and 199B, and from any of the three elective options listed under the Neuroscience major.

Policies
A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Neuroscience
See the Neuroscience graduate interdepartmental program for graduate courses.

Lower-Division Courses
10. Brain Made Simple: Neuroscience for 21st Century. (4) Lecture, four hours. Preparation: high school background in either biology or chemistry. Not open for credit to students with credit for course M101A (or Molecular, Cell, and Developmental Biology M175A or Physiological Science M118A or Psychology M117A) or Physiological Science 111A or Psychology 115. General overview and introduction to most exciting and fundamental topics encompassing field of neuroscience. P/NP or letter grading.

17. Science of Music. (4) Lecture, three hours; discussion, one hour. General overview of basic principles of neuroscience, cognitive psychology, and psychoacoustics to relation of music perception. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

20. Introduction to Neuroscience Methods: Art and Science of Studying Brain. (4) Lecture, four hours; discussion, 90 minutes. Preparation: high school background in either biology or chemistry. General overview of field of neuroscience to serve as introduction to Neuroscience major. Topics covered include brief history of field, basic neurophysiology and neuroanatomy, research methods, experimental design, data analysis, and career prospects. May not be applied toward elective requirements for major. Letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

101L. Neuroscience Laboratory. (4) Lecture, two hours; laboratory, three hours. Requisites: courses M101A, M101B (M101B may be taken concurrently). Not open for credit to students with credit for Psychology 115. Introduction to laboratory methods in neuroscience. Laboratory exercises range from molecular and cellular biological to behavioral. Hands-on experience with important methodology and experimental approaches are noted. P/NP or letter grading.


116A. Behavioral Neuroscience Laboratory. (4) Lab, one hour; laboratory, three hours. Requisites: courses M101A and M101B (M101B may be taken concurrently), or Psychology 10, 100A, 100B, and 115. Not open for credit to students with credit for Psychology 116B. Laboratory for students with credit for Psychology 116B. Designed for Psychology, Biology, and Neuroscience majors. Laboratory experience with various techniques in behavioral neuroscience. Hands-on experience with important methodology and experimental approaches in neuroscience. P/NP or letter grading.

119L. Human Neuropsychology. (4) Same as Psychology M119L. Lecture, three hours. Recommended prerequisites: courses M101A and M101C (or Psychology 115), Psychology 120A or 120B. Designed for juniors and seniors. Survey of experimental and clinical human neuropsychology; neural basis of higher cognitive functions. P/NP or letter grading.

119N. Visual System. (4) Same as Psychology M119N. Lecture, three hours. Requisite: course M101A or Physiological Science 111A or Psychology 115. Ability to image and analyze visual world is truly remarkable feat. Course investigates physiology of visual processing from retina to visual cortex through lectures, extensive reading, and discussions. P/NP or letter grading.

123. Neurobiology of Sleep. (4) Same as Physiological Science CM123. Lecture, three hours; discussion, one hour. Requisites: courses M101A and Molecular and Cell Biology M117A or consent of instructor. Detailed look into science of sleep. Cellular and molecular mechanisms of falling asleep, many discrete brain structures involved in control of sleep wakefulness, and homeostatic regulation of sleep by our bodies. Evolutionary, phylogenetic, and developmental history of sleep and metabolism. Sleep disorders are considered as they provide insights into mechanisms underlying sleep. For background on science of sleep and circadian rhythms, completion of Physiological Science C126 is strongly recommended. Concurrently scheduled with course CM123. Letter grading.

M135. Dynamical Systems Modeling of Physiological Processes. (5) Same as Physiological Science M135. Lecture, four hours; laboratory, two hours. Examination of art of making and evaluating dynamical models of physiological systems and of dynamical principles inherent in physiological systems. Letter grading.

140. Brain Injury and Recovery of Function. (4) Seminar, four hours. Requisite: course 102 or Psychology 116A or 116B. Inquiry into how recovery from brain injury specifically means, and if all recovery is same. Addresses history of how science develops from basic localization of function to understanding more about brain functional recovery. Increase awareness of limitations and surprising potential of brain to adapt to a wide variety of brain traumas. Interests and exciting cases and experiments that have molded current understanding of brain’s potential for recovery. P/NP or letter grading.

142. Neurophilosophy: Introduction and Assessment from Neuroscience Perspective. (4) Lecture, three hours. Requisite: course M101A. Overview of philosophical issues and theories surrounding nature of mind and its relationship with body. Examination of case for relevance of current theoretical and experimental results in neuroscience and cognitive science to philosophy of mind. In particular, focus on variety of approaches to understanding and explaining human consciousness and current lively debates about whether scientific understanding of it is possible. Neuropohilosophy is relatively new interdisciplinary subject. Study is approached as two-way flow of information, from neuroscience to philosophy and vice versa. Examination of traditional philosophical problems given input of recent neuroscience findings as well as application of philosophical problems and techniques to determine which scientific projects related to human consciousness are genuinely new and interesting and which have potential to yield conceptually novel answers. P/NP or letter grading.

M145. Neural Mechanisms Controlling Movement. (5) Same as Physiological Science M145). Lecture, four hours. Requisite: course M101A or Physiological Science 111A or M100A. Examination of central nervous system organization required for production of complex movements such as locomotion, mastication, and swallowing. Letter grading.

150. Biotechnology in Neuroscience. (4) Lecture, three and one half hours. Requisites: courses M101A, M101B, preparation: background in biochemistry. Designed for third- and fourth-year Neuroscience majors. Science advances through development and adaptation of new tools and technologies. Students learn commonly used techniques in neuroscience research, from classic RT-PCR, immunohistochemistry to newly emerged optogenetics, single cell RNAseq, and CRISPR. Students gain better understanding of various advanced methods in field to advance their own potential research in future. Letter grading.

C151. Computational Neuroscience for Interdisciplinary Scientists. (4) Lecture, two hours; laboratory, one hour. Requisites: courses Psychology 115; Life Sciences 30A and 30B, or Mathematics 3A, 3B, and 3C, or 31A, 31B, and 32A; Life Sciences 40 or Psychology 100A or Statistics 10 or 13. Designed for students in both experimental and computational tracks to acquire significant breadth and depth in
computational neuroscience. Highly interdisciplinary study in computational neuroscience. Integrates data-driven modeling, simulations, and analyses of neural dynamics to study brain in hypothesiss-driven approach to computational modeling. Students can immediately apply acquired knowledge and skills in research or industry settings. Concurrently scheduled with course C251, P/NP or letter grading.

M161. Integrated Research in Neuroscience Management. (Same as Psychiatry M182.) Seminar, four hours. Basic overview of brain function and consideration of some management methods that exist already, and what future may hold. Nurturing our own brain's capacity for modeling what if scenarios that might alter risks and benefits of different courses of action, based on individual genetic background and other elements of personal history and environment exposures. Introduction to key principles from science of behavior change, illustrating how important health-related behavioral habits are and how difficult these can be to change and why. Coverage of series of topics that center on personal enhancement of well-being through consideration of stress management, long-term goal and value identification, mapping of long-term goals onto immediate actions, reinforcement learning, meditation, neurofeedback, and time management. Critical appraisal of tools to help students distinguish scientifically validated procedures. Offered in summer only. Letter grading.

M170. Music, Mind, and Brain. (4) (Same as Music Industry M103.) Seminar, three hours; outside study, nine hours. Multidisciplinary approach to understanding brain mechanisms mediating music perception, production, and appreciation. Students' natural interest in music serves as springboard for learning basic concepts about theories of mind, and how brain works to determine perception of harmony and rhythm and interacting with music, and musical creativity. Designed to help students understand methodologies currently used to investigate brain-behavior correlates. Broad understanding of research topics in music neuroscience; introduction to fundamental principles in neurophysiology, psychophysics, and neuroanatomy. Letter grading.


M176. Auditory Neuroscience of Speech Perception and Vocal Communication. (4) (Same as Physiological Science M176.) Lecture, two and one hour; discussion, 90 minutes. Prerequisite: course M101A or Physiological Science 107. Interdisciplinary approach to understanding how animals and other human communicators encode meaning and meaning using sound. Weekly research topics in disciplines of systems neuroscience, cognitive neuroscience, psychophysics, and psycholinguistics. Emphasis on fundamental principles in neurophysiology, neuroanatomy, neuroimaging, and psycholinguistics. Letter grading.

C177. Drugs of Abuse: Translational Neurobiology. (4) Lecture, four hours. Prerequisite: course M101A. Course ranges from synapse to society. Provides intensive didactic and current neuroscientific basis for understanding substance abuse and blends that material with relevant topics such as epidemiology, co-occurring disorders, treatment options, prevention, and public policies, with emphasis on communication of course content. General public welcome. Concurrently scheduled with course C277. Letter grading.

178. Human Electrophysiology and Evoked Potentials in Research and Clinical Diagnosis. (4) Seminar, three hours; laboratory, one hour. Prerequisites: course M101A. Not open for credit to students with credit for course 191A, seminar 1. Emphasis on human electroencephalogram (EEG) and various forms of sensory-evoked potentials. Introduction to number of experimental paradigms that allow for recording of different brain signals from brainstem to cortex. Letter grading.


180. Genetic, Molecular, and Genomic Approaches to Neuronal Development and Disease. (4) Seminar, three hours. Enforced prerequisite: course M101A, M101B. Not open for credit to students with credit for course 191C, seminar 1. In-depth study of genetic, molecular, and genomic approaches to studying nervous system development and disease. Overview of current methodologies currently used to generate mouse models for genetic and phenotypic analysis. Review of techniques for studying development and disease. Integration of genomic approaches for identifying and characterizing gene(s) involved in these processes. Emphasis on mouse models, but other model organisms considered as well. Letter grading.


186. Neural Stem Cells: Biology, Diseases, and Therapies. (4) Lecture, two and one half hours. Preparation: background in biology and biochemistry. Enforced prerequisite: courses M101A, M101B. Designed for third- and fourth-year Neuroscience majors. Comprehensive coverage of stem cells of nervous system during development and adulthood, involvement of stem cells in diseases (e.g., brain tumors, Alzheimer's, Parkinson's), and use of stem cells for therapy. P/NP or letter grading.

M187. Neurobiology of Bias and Discrimination. (4) Same as Physiological Science M106 and Psychology M165. Limited to junior/senior neuroscience majors. Comprehensive coverage of cognitive processes that affect group behavior, and discrimination. Consideration of research at multiple levels of analysis from genetics to neural circuits to behavior. Discussion of societal implications of these research findings, including their relevance to public policies and criminal justice system. Letter grading.

188A. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. Letter grading.


188C. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced requisite: course 188B. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE 885 course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

190. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics related to greater depth than lecture course readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

191A-191B-191C. Variable Topics Research Seminars: Neuroscience. (4–4–4) Seminar, three hours. Topics on one or more aspects of neuroscience. Reading, discussion, and development of culminating project. Students assist faculty members and graduate teaching assistants in laboratory only. May not be applied toward elective requirements and may not be repeated for credit. P/NP or letter grading.

191H. Honors Seminars: Neuroscience. (4) Seminar, four hours. Preparation: one statistics course (Statistics 10 or equivalent), Limited to neuroscience honors program students. Instruction in principles of scientific methodology, ethics, effective communication; critique of current journal articles and research projects. Presentation of individual research. May not be applied toward elective requirements for majors. Must be taken during Winter Quarter of academic year that students enroll in courses 198A and 198B. Letter grading.

192A. Practicum in Neuroanatomy for Undergraduate Assistants. (2) Seminar, three hours; laboratory, one hour. Prerequisites: courses M101A and 102, with grades of A. Limited to senior Neuroscience majors. Training and supervised practicum in neuroanatomy for undergraduate assistants. Students assist faculty members and graduate teaching assistants in laboratory only. May not be applied toward elective requirements and may not be repeated for credit. P/NP or letter grading.

192B. Project Brainstorm: Neuroscience K-12 Outreach. (4) (Formerly numbered 192B.) Seminar, one hour; fieldwork, three hours. Limited to juniors/senior Neuroscience majors selected for Project Brainstorm Capstone. Completion of Project Brainstorm Capstone and spring quarters is required for successful completion of Project Brainstorm Capstone. Course to be supervised by faculty and teaching assistant advisers. Project Brainstorm is K-12 science education outreach program of Brain Research Institute (BRI) and Neuroscience PhD and undergraduate programs that stimulates interest in science for children and young adults in grades K-12 by providing hands-on learning experiences that emphasize function and importance of brain. Students are expected to prepare age-appropriate lesson plans to be used in Project Brainstorm classroom visits. Students meet once a week with supervisors and provide periodic reports of their experience. May be repeated once for credit. Letter grading.

192CC. Drug Abuse and Society: Conveying Concepts to High School Students. (4) (Formerly numbered 192CC.) Seminar, four hours (seven weeks); fieldwork, four hours (three weeks). Enforced prerequisite: courses M101A, C177. Limited to junior/senior Neuroscience majors selected for DOPA Team capstone option. Preparation of students to give accurate, knowledgeable, and age-appropriate lectures in areas of drug abuse. Students are to be selected as followup to course C177 where students learned didactic material on mechanisms of action and translational aspects of drugs of abuse. Students meet on regular basis with supervisors and provide periodic reports of their experience. Letter grading.
Overview

The interdepartmental Neuroscience PhD program prepares students for careers in neuroscience research and education. The hallmark of the program is an integrated approach to study of the nervous system, using the multilevel analytical tools of molecular, cellular, systems, and/or behavioral biology, as well as quantitative approaches from the fields of mathematics, physics, and engineering. Students working at one or two analytical levels nevertheless learn to appreciate the methods and advantages of other levels of analysis. Emphasis is both on mechanisms of neural function and the biological basis of disease. Students select their research mentor from the list of all neuroscience faculty at UCLA.

Information on the undergraduate program in this discipline can be found in the Neuroscience undergraduate interdepartmental program section.

Graduate Major

Neuroscience PhD

Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees available at the Graduate Divisions, Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Neuroscience

See the Neuroscience undergraduate interdepartmental program for more undergraduate courses.

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Graduate Courses

201. Cell, Developmental, and Molecular Neurobiology. (6) Formerly numbered M201.) Lecture, six hours. Fundamental topics concerning cellular, developmental, and molecular neurobiology, including intracellular signaling, cell-cell communication, neurogenesis and migration, synapse formation and elimination, programmed neuronal death, and neurotrophic factors. S/U or letter grading.

M202. Cellular Neurophysiology. (4) Same as Neurobiology M200F and Physiological Science M202.) Lecture, three hours; discussion, two hours. Requisites: Physiological Science 111A (or M180A or Physics 5C), 112A. Advanced course in cellular physiology of neurons. Action and membrane potentials, channels and channel blockers, gates, ion pumps and neuronal homeostasis, synaptic receptors, drug-receptor interactions, transmitter release, modulation by second messengers, and sensory transduction. Letter grading.

M203. Anatomy of Central Nervous System. (4) (Same as Bioengineering M263.) Lecture, 75 minutes; discussion/laboratory, two hours. Prior to first laboratory meeting, students must complete Bloodborne Pathogens training course through UCLA Environment, Health and Safety. Study of anatomical locations of and relationships between ascending and descending sensory and motor systems from spinal cord to cerebral cortex. Covers cranial nerves and brain-stem anatomy along with anatomy of ventricular and vascular systems and of the spine. Subfields including topics covered in detail. Integrated anatomy laboratory includes brain dissections and tools of MRI analysis. Letter grading.

305. Systems Neuroscience. (4) Lecture/discussion, four hours. Introduction to fundamental systems of neuroscience, with emphasis on integration of molecular mechanisms, cellular processes, anatomical circuits, and behavioral analysis to understand function of neural systems. Letter grading.

M206. Neuroengineering. (4) (Same as Bioengineering M260 and Electrical and Computer Engineering M255S.) Lecture, four hours; laboratory, three hours; outside study, five hours. Requisites: Mathematics 32A, Physics 18B or 5C. Introduction to principles and technologies of bioelectricity and neural signal recording, processing, and stimulation. Topics include bioelectricity, electrophysiology (action potentials, local field potentials, EEG, EOG), intracellular and extracellular recording, microelectrode technology, neural signal processing (neural signal frequency bands, filtering, spike detection, spike sorting, stimulation artifact removal), brain-computer interfaces, deep-brain stimulation, and prosthetics. Letter grading.

207. Integrity of Scientific Investigation: Education, Research, and Career Implications. (2) Discussion, two hours. Designed for graduate students. Debate on topics related to ethical conduct of scientific investigation, with emphasis on critical thinking. Topics include scientific misconduct, mentoring, data ownership, authorship, peer review, use of animals and humans in biomedical research, conflicts of interest, technology, and scientific integrity. S/U grading.


215. Variable Topics Research Literature Seminars: Neurosciences. (1) Seminar, two hours. Critical discussion and analysis of current literature for various neurosciences topics. Only one topic may be taken twice for credit and applied toward neurosciences graduate requirements. S/U grading.

M220. Biology of Learning and Memory, (Same as Neurobiology M200G and Psychology M228.) Lecture, four hours. Cross-disciplinary focus on learning and memory to provide integrative view of subject that emphasizes research findings that take advantage of novel groundbreaking models. Letter grading.

222. Brain Imaging and Brain Stimulation, (4) Lecture, four hours. Limited to graduate students in neuroscience, bioengineering, psychology, and School of Medicine. Introduction to fields of brain imaging and brain stimulation, including various imaging modalities and neurostimulation strategies. Introduction to use of brain imaging in isolation or in combination with brain stimulation to understand neural circuitry, systems, and networks in health and disease. Encourages critical thinking about opportunities and limitations of two fields, and how to overcome them by combining two approaches for or integration of brain systems and functions. S/U or letter grading.

CM223. Neurobiology of Sleep, (4) (Same as Physiological Science CM223.) Lecture, three hours; discussion, one hour. Requisite: course M223. Consider many discrete brain structures involved in control of sleep/wakefulness, and homeostatic regulation of sleep. Approaches to the fundamentals shaped by evolutionary history, age, and gender. Latest insights into function of sleep, critical role sleep plays in memory formation and, close association between sleep and psychiatric disorders are considered as they provide insights into mechanisms underlying sleep. For background on science of sleep and circadian rhythms, completion of Physiological Science C122 is recommended. Concurrently scheduled with course CM123. Letter grading.

M230. Molecular and Cellular Mechanisms of Neural Integration, (5) (Same as Physiological Science M210 and Physiology M210.) Lecture, four hours; discussion, one hour. Requisite: course M202A, Introduction to mechanisms of synaptic processing. Selected problems of current interest, including regulation and modulation of transmitter release, molecular biology and pharmacology of receptors, cellular basis of neurotrans- mission in sensory perception and learning, neural nets and oscillators, and molecular events in development and sexual differentiation. Letter grading.

M233. Mechanisms and Relief of Pain, (2) (Same as Oral Biology M226, Surgery M226.) Lecture, two hours. This course is designed for treatment of neuroanatomical, neurophysiological, and biochemical bases of pain perception. Topics include classical pain pathways, pain receptors and pathways, endogenous mechanisms of pain modulation, and pharmacological basis for treatment of pain disorders. Letter grading.

240. Phenotypic Measurement of Complex Traits, (4) Lecture, three hours. Preparation: background in human genetics helpful. Integrative approach to understanding gene to behavior pathways by examination of levels of phenotype expression across systems (cell, brain, behavior, species, individual, mouse, human), and throughout development across varying environmental milieus. Using examples from human disorders such as schizophrenia and Alzheimer’s disease, these diverse approaches in genetic research to map out integrative system of understanding of complex human behavior. Emphasis on basic understanding of methods used at each level of analysis, along with major sources that can be accessed to gain insight to gene-behavioral links. Letter grading.

245. Optical Approaches in Neuroscience, (4) Lecture, four hours. State-of-art, light-microscopy-based approaches in neuroscience. Background material on basic optical principles and microscope design, as well as certification in use of lasers. Technical approaches commonly used in study of nervous system, including imaging modalities such as two-photon microscopy, methods for imaging and stimulating neural activity, and advanced microscopy approaches such as FRET and FLIM. Letter grading.

M248. Brain and Behavioral Development during Adolescence, (Same as Psychology M249.) Lecture, three hours. Foundational and emerging work on adolescent brain and behavioral development. Topics include cognition, risk taking, emotion, identity, stress, neuropsychiatric disorders, systems of the phenomena of assigned readings and presentations by guest faculty and scientists. S/U or letter grading.

250. Neural Development and Repair, (4) Lecture, four hours. Specific training in neural development and repair. Each week tackles different topic with topophysiology and provides perspective on its relevance to human diseases, treatments, and unmet needs for future research. Letter grading.

C251. Computational Neuroscience for Interdisciplinary Scientists, (4) Lecture, two hours; laboratory, one hour. Requisites: course M101A or Psychology 115; Life Sciences 30A and 30B, or Mathematics 3A, 3B, and 3C, or 31A, 31B, and 32A; Life Sciences 40 or Psychology 100A or Statistics 10 or 13. Designed for students in both experimental and computational tracks to acquire significant breadth and depth in computational neuroscience. Highly interdisciplinary study in computer science integrates data-driven modeling, simulations, and analyses of neural dynamics to train students in hypothesis-driven approach to computational modeling. Students can immediately apply new skills in research or industry settings. Concurrently scheduled with course C151. S/U or letter grading.

255. Functional Organization of Behavior, (2) Lecture, four hours. Functional changes in neuronal properties supporting changes in learned behavior. Different types of learning. Role of neurotransmitters and second messengers in changing ion channels of neurons to support associative learning, and molecular mechanisms of neurotransmission. S/U or letter grading.

259. Introduction to Dynamical Systems, (4) Lecture, two hours; discussion, one hour. Introduction to essential concepts of modeling and dynamics, with applications at various levels of physiology and neurosciences, S/U grading.

260. Introduction to Signal Processing for Neuroscientists, (4) Lecture, four hours. Limited to Neuroscience graduate students. Introductory principles for handling some common types of time-varying data used to measure brain activity (spikes, local field potentials, calcium transients). Analysis of data with simple computer scripts for team-based projects. May not be repeated for credit.

265. Essentials of Neuro-Oncology, (4) Lecture, 90 minutes; discussion, 90 minutes. Preparation: competence in general statistics, neurobiology, and neuroanatomy. Introduction to topics in clinical neuro-oncology and neuro-oncology research. Exposure to multidisciplinary field of neuro-oncology through weekly meetings consisting of lectures from expert faculty and in-depth journal club or topical discussions on both fundamental and contemporary topics in neuro-oncology. Students learn various types of central nervous system tumors, and how they are diagnosed, treated, and monitored. The aspects of treating neuro-oncology patients, including issues associated with changes in quality of life, neurocognition, and psychological concerns. Discussion of current and new approaches to neuro-oncology. Letter grading.

270. Brain Architecture, (4) Lecture, two hours; discussion, one hour. Preparation: first-year neuroscience graduate core courses. Overview of brain architecture, including structural and functional neuroimaging for brain connectomic research. Evolution and development of nervous system, comparative neuroanatomy and behavioral neuroanatomy as well as cellular and molecular development, methods, imaging processing pipelines for neuroanatomical data, and neuroinformatics principles. S/U or letter grading.


M273. Neural Basis of Memory, (4) (Same as Psychology M270.) Lecture, two hours; discussion, one hour. Anatomical, physiological, and neurological data integrating models for how memory is formed and how it is stored. Discussion of invertebrate memory, cortical conditioning, hippocampus and declarative memory, and frontal lobes and primary memory.

275. Advanced Techniques in Neurobiology, (2) Lecture, four hours. Preparation: introductory knowledge in physiology, biochemistry, and general biology. Designed to provide introduction and, when possible, practical demonstration of a number of techniques used in neurochemical research, with emphasis on techniques used for identification, measurement, and visualization of compounds thought to be important as mediators of intercellular communication in central nervous system. S/U or letter grading.


M284A-M284B. Principles of Neuroimaging I, II, (4–6) (Same as Psychology M284A-M284B and Psychological Science M284A-M284B.) Lecture, three hours. In-depth examination of activation imaging, including fMRI, evoked potential and functional magnetic resonance imaging methods for study of nervous system, with emphasis on quantitative understanding and data interpretation and features common to modalities. X-ray computed tomography, magnetic resonance imaging, positron emission tomography, magnetoencephalography, transcranial magnetic stimulation, near infrared imaging. Letter grading.


286A. Electroencephalography Methods and Analysis I, (4) Lecture, three hours. Recommended preparation: one term of graduate level statistics, biostatistics. Understanding of neural origins of electroencephalography (EEG), common and advanced methods for experiment design, EEG recording and noise reduction, data analysis, feature extraction, and biomarker development. Students design simple experimental paradigms to answer some fundamental perceptual and cognitive questions. They record EEG and extract useful information using popular EEG processing interfaces such as EEGLAB and BrainStorm, perform some common statistical tests on the extracted features and explain achieved results, and navigate through state-of-the-art analyses and applications of EEG recording. Letter grading.

Neurosurgery

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1 Seminar, one hour. Discussion of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Course

199. Directed Research in Neurosurgery. (2 to 8) Tutorial, two hours. Limited to juniors/seniors. Supervised research or other scholarly work, three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Culminating paper required. May be repeated for credit. Individual contract required. P/NP grading.

NURSING

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Professors

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Barbara M. Bates-Jensen, RN, PhD, WOCN, FAAN
Sarah E. Choi, RN, PhD, FNP
Lauren Clark, RN, PhD, FAAN (Shapiro Family Endowed Professor of Developmental Disability Studies)
Hollis A. DeVon, RN, PhD, FAHA, FAAN (Audrienne H. Moseley Professor of Community Health Research)
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Professors Emeriti

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Lisa K. Badr, RN, DNSc, FNP-C, FAAN
Mary P. Cadogan, DrPH, GNP-BC, FAAN, FGSA
Betty L. Chang, RN, DNSC, FNP-C, FAAN
Peggy A. Compton, RN, PhD, FAAN
Lynn V. Doering, PhD, FAHA, FAAN (Audrienne H. Moseley Professor Emerita of Nursing)
Jo-Ann O. Eastwood, RN, PhD, CNS, ACNP-BC, FAAN
Jacquelyn H. Flaskerud, RN, PhD, FAAN
Anna F. Gawlinski, RN, PhD, ACNP-BC, CNS-BC, FAAN
Deborah Koniak-Giffin, RNC, EdD, FAAN (Audrienne H. Moseley Professor Emerita of Women’s Health Research)
Mary A. Lewis, RN, DrPH, FAAN
Sally L. Maliski, RN, PhD
Donna K. McNeese-Smith, RN, EdD, CNA
Janet C. Mentes, PhD, APRN, FAAN, FGSA
Joyce A. Newman Giger, RN, EdD, FAAN
Carol L. Pavlish, RN, PhD, ONC, FAAN
Linda R. Phillips, RN, PhD, FGSA, FAAN (Audrienne H. Moseley Professor Emerita of Nursing)
Huibrie C. Pieters, RN, MSN, DPhil, PhD
Sharon J. Reeder, RN, PhD, FAAN
Linda P. Sarna, RN, PhD, FAAN (Lulu Wolf Hasselplug Professor Emerita of Nursing)
Gwen M. Van Servellen, RN, PhD, FAAN
Frances M. Wiley, RN, MN
Ann B. Williams, RNC, EdD, FAAN
Mary A. Woo, RN, PhD, FAAN

Associate Professors

Wei-Ti Chen, RN, PhD, CNM, FAAN
Nalo M. Hamilton, PhD, MSN, APRN-BC
Su Yon Jung, PhD
Sophie Sokolow, MPharm, PhD

Assistant Professors

Dana C. Beck, MSN, PhD, FNP-BC
Eden R. Brauer, RN, PhD
Kristen R. Choi, RN, MS, PhD
Rosario A. Jaime-Lara, RN, FNP, PhD
Charlene A. Niemi, RN, MSN, PhD, PHN, SNSC, CNE
Mary Rezk-Hanna, NP, PhD
Christine Samuel-Nakamura, RN, PhD, FNP-BC
Kia Skrine Jeffers, RN, PhD, PHN
Yeonsu Song, RN, PhD, FNP-C
Kristi K. Westphaln, RN, PhD, CPNP-PC

Lecturers

Carol L. Cunningham, RNFA, PHN, MSN, FNP-C
Barbara L. Demman, RN, MSN, CNS, ACNP
Stacey D. Green, RN, MSN, DNP, GNP-BC, PHN, NPMP, AOCNP
Amy S. Lohmann, RN, DNP, CNS, CPNP
Laurie A. Love-Bibbero, RN, DNP, FNP-BC
Young Kee Markham, RN, MN, GNP-C
Nancy E. McGrath, RN, MN, CPNP-AC/PC
Silvia L. Mieure, RN, MSN, CCRN, CNL

Overview

Neurosurgery is a discipline of medicine that provides operative and nonoperative management (i.e., critical care, prevention, diagnosis, evaluation, treatment, and rehabilitation) of disorders of the central, peripheral, and autonomic nervous systems, including their supporting structures and vascular supply; the evaluation and treatment of pathological processes that modify the function or activity of the nervous system, including the hypophysis; and the operative and nonoperative management of pain.

As such, neurosurgery encompasses treatment of adult and pediatric patients with disorders of the nervous system—disorders of the brain, meninges, and skull and their blood supply, including the extracranial carotid and vertebral arteries, disorders of the pituitary gland, disorders of the spinal cord, meninges, and vertebral column, including those that may require treatment by spinal fusion or instrumentation, and disorders of the cranial and spinal nerves throughout their distribution.

For more details on the Department of Neurosurgery, see the department website.

Neurosurgery faculty information is available from the department.
Adjunct Professors
Mary Lynn Brecht, PhD
Nancy Jo Bush, RN, MN, MA, AOCN, ONP, FAAN
Catherine L. Carpenter, PhD

Adjunct Associate Professors
Nancy T. Blake, RN, PhD, CCRN-K, NHDP-BC, NEA-BC, FAAN
Anita R. Bralock, RN, PhD, CNM
Denice Economou, PhD, CNS, CHPN
Kathleen McDermott, RN, APRN, MSN, DNP, PMH-NP-BC
Benissa E. Salem, RN, MSN, PhD, CNL, PHN
Rita L. Secola, RN, PhD
Ali Tayyab, RN, PhD, NPD-BC, PHN
Elizabeth Anne Thomas, RN, PhD, ANP-BC, COHN-S, FAAOHN

Adjunct Assistant Professors
Theresa A. Brown, RN, DNP, MSN, ACNP-BC, AACC, FAAN
Emma Lyn M. Cuenca, RN, DNP, CCRN, CSC, CNS

Overview
A strong scientific basis underlies the teaching of nursing practice, leadership, and research. Related clinical experiences are arranged within the Reagan UCLA Medical Center, its affiliates, other major medical centers, or in selected community sites.

At the bachelor’s level, nurses are prepared as generalists with special skills in primary, secondary, and tertiary prevention and care within a population-based context, leadership, and evidence-based practice. At the master’s level, nurses are prepared as generalists in hospital-based care or for advanced nursing practice as nurse practitioners, or clinical specialists, or administrators in a variety of settings and specialized areas of healthcare. The Doctor of Philosophy (PhD) program prepares scholars who do original research, generate new theories, and build the scientific basis for professional nursing practice. Research is both basic and applied.

Undergraduate Major
Nursing BS Prelicensure
The focus of the prelicensure program is on the preparation of nurse generalists with special skills in primary, secondary, and tertiary prevention and care within an individual- and population-based context while developing the basics for a strong leadership role. Students learn the art and science of nursing using the latest research findings to guide their practice.

Capstone Major
The Nursing (Prelicensure) major is a designated capstone major. Students complete a clinically based scholarly project that is approved by a designated faculty member. In completing the capstone course, students should select, evaluate, and apply appropriate theory and research findings concerning individual- and population-based health promotion and disease prevention, biobehavioral and health systems, and social environmental, cultural, and human diversity to the nursing process. They should utilize the nursing process to promote biopsychosocial health and disease prevention and to support the resources of culturally diverse clients and families in community- and/or hospital-based settings.

Through their work, students should demonstrate effective communication and collaboration skills with clients and their families, research participants, other health professionals, colleagues, and policymakers. They also should identify practice-based problems and hypotheses and critique research on issues of importance to nursing and health care delivery; participate effectively in relevant professional and community organizations and/or interest groups; demonstrate leadership as a member of the health team to plan, manage, and evaluate care of individuals, families, and communities for culturally diverse populations; and practice their work based on the principles of ethics, social justice, and law.

Learning Outcomes
The Nursing major has the following learning outcomes:

- Selection, evaluation, and application of appropriate theory and research findings concerning individual- and population-based health promotion and disease prevention, biobehavioral and health systems, social environmental, and cultural and human diversity to the nursing process with a variety of clients, families, and communities from diverse cultural backgrounds
- Use of the nursing process to promote biopsychosocial health and disease prevention, and to support client resources in community and hospital settings
- Demonstrated effective communication and collaboration skills with clients, families, research participants, health professionals, and policymakers
- Identification of practice-based problems and hypotheses, and critique research on issues of importance to nursing and health care delivery within hospital and community settings
- Effective participation in professional and community organizations and interest groups relevant to health care delivery and modification of nursing standards and practices in keeping with current trends
- Demonstrated leadership as a health team member to plan, manage, and evaluate care of individuals, families, and communities
- Practice of hospital- and community-based nursing using principles of ethics, social justice, and law

Entry to the Major
Admission
The School of Nursing strives to attract a culturally and ethnically diverse student population. Admission is designed for first-year students and transfer students at the junior level. First-year applicants are expected to fulfill the University of California admission requirements. Transfer applicants are expected to fulfill the Intersegmental General Education Trans-
13. Introduction to Human Anatomy. (5) Lecture, three hours; laboratory, two hours. Structural presenta-
tion of human body, including musculoskeletal, ner-
vous, circulatory, respiratory, digestive, and re-
productive systems. Laboratory uses virtual cadaver
anatomy and dissection and examination. Letter grading.

15. Social Determinants of Health and Social Jus-
tice: Introduction to Professional Nursing Roles. (4) Lecture, three hours; discussion, two hours. Interna-
tional and domestic nursing practice requires rich his-
tory of changing roles within context of ethics, and so-
cial justice. Analysis of ethical principles of justice, au-
tonomy, beneficence, and confidentiality of human dig-
ity, integrity, and social justice in relation to nursing
practice across lifespan development and across health-
illness continuum. Examination of determinants of
human body within context of cultural, social, cul-
tural, and political forces and traditions of paternalism
affecting professional nursing in diverse populations.
Letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one
hour. Discussion of and critical thinking about topics of
current intellectual importance, taught by faculty
members in their areas of expertise and illuminating
many paths of discovery. Corequisite: courses 10, 20, 50,
and availability as well as consumption are linked to
nutritional patterns. Exploration of food production in
relation to climate change. Inequality of food choice
and availability as well as consumption are linked to
health disparities. Letter grading.

20. Introduction to Nursing and Social Justice II. (2)
Lecture, two hours. Prerequisite: course 10. Advanced
discussion on history of nursing, with focus on role of
contemporary nursing in relation to ethics and social
justice. Analysis of ethical principles of justice, au-
tonomy, beneficence, and confidentiality of human dig-
ity, integrity, and social justice in relation to nursing
practice throughout history in health/illness and end-
of-life contexts. Evaluation of social, cultural, legal,
and political forces in relation to paternalism for pro-
fessional nurses working with diverse patient popula-

50. Fundamentals of Epidemiology. (4) Lecture, three
hours; laboratory, three hours. Epidemiology focuses
on distribution and determinants of health-related
states or events in specified populations. Fundamen-
tally, epidemiology seeks to control health problems in
communities and institutions. Letter grading.

54A. Pathophysiology I. (3) Lecture, three hours.
Prerequisites: courses 3, 13 taken within past three
days. Designed to provide students with basic under-
standing of pathophysiological changes that occur
within internal environment of individual. Concepts un-
derlying pathologic changes across all body systems are
reviewed. Laboratory alterations is basic to providing quality nursing care. System varia-
tions across lifespan are addressed. Letter grading.

54B. Pathophysiology II. (2) Lecture, two hours. Req-
uisite: course 54A. Designed to provide students with understanding of clinical
concepts of relevant physiological changes that
occur at cellular, tissue, and organ level across se-
lected body systems within internal environment of
individual. Presence of dysfunction or disease of se-
lected systems is provided as rationale for nursing di-
agnosis and therapeutic interventions. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (su-
pervised research or other scholarly work), three to
four hours per week per unit. Entry-level research for lower-
division students under guidance of faculty mentor.
Students must be in good academic standing and en-
rolled in minimum of 12 units (excluding this course).
Individual research projects, approved by Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

115. Pharmacology and Therapeutics. (5) Lecture,
four hours. Prerequisites: courses 54A, 54B. Clinical
pharmacology for undergraduate nursing students,
begins with fundamental basic pharmacologic
principles. Focus on major drug classes and their
mechanism of action, pharmacokinetics, adverse ef-
tects, and clinical issues. Letter grading.

140. Advanced Growth and Development in Cultur-
ally Diverse Populations. Five hours. In-
truction of primary prevention strategies as they
pertain to health and wellness across lifespan, using
population-based approach to nursing care of diverse
populations. Includes priorities in reproductive health
including issues related to contraception and par-
enting, well child care, school-age health, and chronic
illness prevention strategies for young and middle-
aged adults and elderly who live independently in
communities or within institutions. Letter grading.

141. Nutrition for Health Care Providers. (5) Lecture,
four hours; laboratory, three hours. Critical analysis of
nutrition prevention strategies for young and middle-
aged adults and elderly who live independently in
communities or within institutions. Letter grading.

150A. Fundamentals of Professional Nursing I. (4)
Lecture, three hours; laboratory, three hours. Requi-
sites: courses 10, 20, 50. Conceptual, theoretical
foundations of primary, secondary, and tertiary pre-
vention as they relate to nursing care management in
acute care settings for Nursing BS students. Em-
phasis is placed on clinical and interpersonal roles of
Nursing BS practice roles in health care systems through case
study examples, with focus on application to clinical
practice settings that include culturally diverse popu-
lations. Concepts of communication, caring, critical
thinking skills as clinical decision-making strategy, and critical
thinking skills are introduced as essential to practice of professional
nursing. Learning experiences in nursing skills laboratory and
clinical settings are integral components. Introduction to mathematics cal-
culations and terminology used in clinical setting.
Letter grading.

150B. Fundamentals of Professional Nursing II. (4)
Lecture, three hours; laboratory, three hours. Requi-
sites: courses 150A, 152A, 152B, 174. Continuation of
course 150A. Expansion of student knowledge on
nursing skills laboratory and in clinical settings are in-
tegration of mathematics calculations and terminology used in clinical setting.
Letter grading.

152A. Health Promotion: Growth and Develop-
ment in Culturally Diverse Populations. (2) Lecture,
two hours. Introduction to primary prevention strategies as they
pertain to health and wellness across lifespan, using
population-based approach to nursing care of diverse
populations. Priorities in growth and develop-
ment are reproductive health and related to contraception and parenting; well-child care,
school-age health, and chronic illness prevention strategies for young and middle-aged adults; elderly who live independently in communities or within
institutions. Analysis of influence of overarching political,
social, and governmental systems within U.S. Letter
grading.

152B. Health Promotion: Nutrition in Culturally Di-
versified Populations. (2) Lecture, two hours. Examina-
tion of primary prevention strategies involving nutrition
using population-based and clinical approaches to
nursing care of diverse populations. Investigation of
nutrition in relation to prevention and recov-
ery from disease. Covers biological, public health,
and clinical aspects of major macro- and micronutri-
ents, obesity, malnutrition, dietary assessment, nutri-
tional therapies, and exercise using candidate disease
approach. Examination of influences of overarching
C155. Global Health Elective: Globalization, Social Justice, and Human Rights. (3) Seminar, two hours. Exploration of theories, issues, debates, and pedagogy associated with globalization, social justice, and human rights and how these perspectives influence human health and well-being. Provides students with unique opportunity to explore these topics within classroom, via Internet and other technologies, and in other classrooms located around globe. Students, through small groups and with peers across the world, reflect on how globalization shapes and transforms local communities and national cultures. Concurrently scheduled with course C255. Letter grading.

160. Secondary Prevention. (4) Lecture, four hours. Reflection and assessment. Focus placed on prevention of chronic or acutely deteriorating illness. Expanding on concepts of health and human development and using nursing science to identify and intervene with care to individuals and their families to screen, diagnose, and treat illness at earliest possible time to prevent disability or premature mortality. Examination of health of individuals within context of family, social and community systems, and interdisciplinary healthcare systems. Emphasis on differences in developmental stages in response to screening for early assessments and symptoms of illness in ambulatory and acute care settings, community agencies, rehabilitation units, outpatient specialty clinics and surgical units, and home and community settings. Letter grading.

161. Psychiatric Mental Health Nursing. (5) Lecture, three hours; clinical, six hours. Requisites: course 160, 162B. Knowledge development and skill assessment to the health and well-being of individuals with psychiatric disorders. Application of basic knowledge of pathophysiology, pharmacology, and diagnostic data for purposes of planning, implementing, and evaluating course of care for patients. Letter grading.


162C. Tertiary Prevention and Care of Complex Medical Issues. (5) Lecture, four hours (10 weeks); clinical, five hours (five weeks). Requisite: course 162B. Nursing assessment and management of acute and chronic health problems of older adults. Focus on integration of basic knowledge of pathophysiology, pharmacology, and diagnostic data for purpose of planning, implementing, and evaluating course of care for patients. Letter grading.

163. Nursing Care of Geriatric Patients and Families. (5) Lecture, one hour; discussion, one hour. Requisite: course 162A. Addresses prevention and management of acute and chronic health problems of older adults. Theory content emphasizes assessment, goal setting, and evaluation of nursing care to care of older adults and their families with emphasis on psychosocial, cultural, and developmental influences. Students integrate knowledge of pathophysiology, pharmacology, and diagnostic data for purpose of planning, implementing, and evaluating course of care for patients. Letter grading.

164. Maternity Nursing. (5) Lecture, three hours; clinical, six hours. Requisites: courses 160, 160B. Nursing assessment and management for selected acute and emergent problems in maternity/newborn patients, with emphasis on social, cultural, and developmental influences. Integration of basic knowledge of pathophysiology, pharmacology, and diagnostic data for purposes of planning, implementing, and evaluating course of care for patients. Letter grading.


169. Clinical Internship: Introduction. (12) Clinical, 36 hours. Requisites: courses 161, 162C, 163, 164, 165. Supervised practicum experience within clinical setting as part of interdisciplinary health care team. Focus on application of clinical reasoning and critical thinking to the interpretation of assessment and diagnostic data for purposes of planning, implementing, and evaluating course of care for patients, both as individuals and cohorts. Focus on design and complete quality improvement project that contributes to unit’s goals and objectives. Students implement advanced-level assessment, health maintenance, and management of symptoms across lifespan. P/N grading.

171. Public Health Nursing. (6) Lecture, three hours; clinical, nine hours. Requisites: courses 161, 162C, 163, 164, 165. Theoretical content focuses on population-based approach to public health nursing in relation to community promotion and prevention of illness at the level of individuals, families, communities, and systems. Clinical practicum concentrates on population-based public health nursing in culturally diverse settings. Focus on health outcomes, policies, federal, state, local, and public service agencies. Clinical practicum activities include health promotion and disease prevention education at the level of communities, populations, and systems, both domestically and globally. Letter grading.

M172. Care Work: Disability Justice and Health Care. (2) Same as Disability Studies M172. Lecture, one hour; discussion, one hour. Exploration of nature, history, models, and propositions of care, work, disability, disability justice movement, and health care. Consideration of intersections, interdependence, and complexities of formal and informal care webs and care economies between caregivers and receivers, which includes kin, advocates, disability communities, and health professionals. Use of multi-media, scholarly texts, and theoretical frameworks from disability justice, disability studies, film, gender studies, health, labor studies, law, nursing, and public policy to investigate the concepts of care and care work. Letter grading.

M172XP. Care Work: Disability Justice and Health Care. (3) Same as Disability Studies M172XP. Seminar, one hour. Corequisite: course M172. Exploration of nature, history, models, and propositions of care, work, disability, disability justice, disability studies, film, gender studies, health, labor studies, law, nursing, and public policy to investigate the concepts of care and care work. Focus on community engagement with collaborative frameworks and governmental policies and programs in community-based organizations, or health-care networks of disability care. Letter grading.

173W. Introduction to Nursing Research and Writing II. (5) Lecture, five hours. Requisite: English Compositio- nal Writing I. Research, critical thinking, and qualitative research project based on simple question. Review of components of research activities: specific aims and study purposes, variables, sampling, data collection tools, data analyses, and ethical conduct in research studies. Exploration of research design and methodology. Focus on implementation of research process as related to nursing practice. Emphasis on comprehensive research transformation and dissemination of findings. Students critically evaluated
research. Study by example of relationship between theory and nursing research. Satisfies Writing II requirement. Letter grading.

174. Physical Assessment. (4) Lecture, four hours; laboratory, three hours. Prerequisites: courses 3, 13. Designed to provide in-depth review and synthesis of physical assessment skills and knowledge covering lifespan. Individual study, use of audiovisual aids, physical assessment laboratory, and required text are mandatory. Letter grading.

177. Physical Health Nursing. (6) Lecture, three hours; clinical, three hours. Theoretical content focuses on health promotion and disease prevention at level of communities, populations, and health policy institutions, and public service agencies. Clinical practicum activities include health promotion and disease prevention at level of communities, populations, and health policy institutions, both domestically and globally. Letter grading.

175. Physical Assessment for Advanced Practice. (4) Lecture, three hours; laboratory, three hours. Comprehend the physical assessment skills and knowledge covering lifespan and in diverse populations. Emphasis on history-taking related to general health status and specific complaints, as well as development of new knowledge through technical individual study, use of audiovisual aids, physical assessment skills practice in laboratory, and required text are mandatory. Letter grading.

188. Special Topics in Nursing. (4) Lecture, three hours; discussion, one hour. Limited to junior/senior Nursing majors. Departmentally sponsored experimental or temporary courses, such as those taught by visiting faculty members. May be repeated for credit. Individual contract required. P/NP or letter grading.

196. Research Apprenticeship in Nursing. (2 to 4) Tutorial, four hours per week per unit. Limited to juniors/seniors. Entry-level research apprenticeship for upper-division students under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

197. Individual Studies in Nursing. (2 to 4) Tutorial, one hour. Limited to junior/senior Nursing majors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

199. Directed Research or Senior Project in Nursing. (2 to 4) Tutorial, one hour. Individual contract required. P/NP or letter grading.

Graduate Courses


202. Philosophy of Nursing Science. (4) Lecture, four hours. Focus on philosophy of nursing science by exploring genealogies of thought that underpin epistemological, historical, ethical, and cultural assumptions for nursing knowledge. Analysis of contemporary schools of thought (modern and postmodern) in relation to nursing scholarship as well as role of nurse scientist as leader in policy development in greater health care milieu. Letter grading.

204. Research Design and Critique. (4) Lecture, 90 minutes; discussion, 90 minutes. Complex research designs and analysis of multiple variables and research utilization. Emphasis on techniques for control of variables, data analysis, and interpretation of results. Focus on depth of understanding of interrelationships among theoretical frameworks, design, sample selection, data collection instruments, and data analysis techniques. Content discussed in terms of clinical nursing research problems and application to clinical settings. Letter grading.

205A. Introduction to Qualitative Methods in Research. (4) Lecture, four hours. Requisites: course 202. Introduction to qualitative research design in nursing science. Examination of major methodologies that guide qualitative research in relation to various strategies for data collection (interviews, participant observation, focus groups), data analysis, and data interpretation. Scientific rigor and ethical concerns for research with human participants critically examined. Letter grading.

205B. Advanced Qualitative Research: Grounded Theory Methodology I. (4) Lecture, four hours. Requisites: course 205A or equivalent as approved by instructor. Students design and implement qualitative project study based on grounded theory methodology. Synthesize research findings with grounded theory as guide to recruit small sample, collect data through interviews and observations, and simultaneously analyze data through inductive coding and theoretical sampling (constant comparison). Application of principles of constant comparison and examination of key elements of self-reflexivity and research ethics. Letter grading.

205C. Advanced Qualitative Research: Grounded Theory Methodology II. (4) Lecture, four hours. Requisites: course 205B or equivalent. Students design and implement qualitative project study based on grounded theory methodology. Synthesize research findings with grounded theory as guide to recruit small sample, collect data through interviews and observations, and simultaneously analyze data through inductive coding and theoretical sampling (constant comparison). Application of principles of constant comparison and examination of key elements of self-reflexivity and research ethics. Letter grading.

206A. Nursing Concept Development. (2) Lecture, two hours. Requisites: course 202 or philosophy of science (may be taken concurrently), four units of nursing theory. Examination of history of conceptual and theoretical thinking on health and illness. Identification of conceptual issues that continue to influence development of nursing knowledge and nursing science. Application of skills fundamental to concept analysis and development in nursing and use in nursing research and theory. Letter grading.

206B. Nursing Theory Development. (2) Lecture, two hours. Requisites: courses 202 or philosophy of science (may be taken concurrently), 206A. Preparation: 4 units of nursing theory. Critical analysis of role of theory and theoretical frameworks in developing nursing research. Application of skills fundamental to development of theory in nursing and integral to use of theory in nursing research. Letter grading.

207. Quantitative Research Designs of Clinical Phenomena. (3) Lecture, two hours; discussion, one hour. Requisites: courses 202, 206A, 210A, 210B, Biostatistics 100B. Introduction to array of quantitative research study designs. In-depth examination of dynamic interaction between research question and process and theoretical approaches to experimental- and many quasi-experimental- and non-experimental- study designs. Examination of potential threats to validity of and other design characteristics that are associated with research-study designs. Letter grading.


209. Human Diversity in Health and Illness. (4) Lecture, four hours. Human diversity in response to illness that nurses diagnose and treat, centering on culture and human belief systems associated with diverse orientations related to ethnicity and gender. Provides conceptual base that nurses can use in clinical practice, research, teaching, and administration. Letter grading.

210. Critical Review of State of Science in Nursing Research. (3) Lecture, three hours. Requisite: doctoral standing or consent of instructor. In-depth exploration of state of science for health service, biological, vulnerable populations, and biobehavioral topics. Students explore research on particular phenomena, analyze current and historical scholarly findings in literature, critique significance of focus on this phenomenon for nursing promotion of social and meaningful gaps in knowledge through systematic review of research literature, and provide recommendations for future nursing research in biologic, biobehavioral, vulnerable populations, and health services research. Letter grading.

210B. State of Science in Nursing: Critical Synthesis of Literature. (3) Lecture, three hours. Requisite: doctoral standing or consent of instructor. In-depth analysis of published research in health service, biological, vulnerable populations, and biobehavioral topics. Students deepen and refine understanding of state of science and scholarship relevant to research questions. Provides broad analysis of identified gaps in current knowledge through advancing systematic review, critique, and synthesis of research literature. Letter grading.

211. Women’s Health Primary Care. (2 to 4) Lecture, three hours; discussion, one hour. Theory and research on assessment and management of women’s health issues during reproductive years. Clinical topics include gynecology, family planning, pregnancy, and parenthood, and issues related to prevention and promotion of women during reproductive years in primary care settings. Letter grading.

212. Family Healthcare Perspectives. (2) Lecture, two hours. Overview of conceptual frameworks related to contemporary family structure and functioning, with particular emphasis on health. Family is defined broadly to include nontraditional families; consideration of cross-cultural views of families as well. Identification of limitations of current theory and research related to family study and applicability of current knowledge to various problems encountered in care of families. Letter grading.


216A-216B-216C. Adult/Gerontology Concepts for Advanced Practice Registered Nurses. (3) Lecture, four hours. Requisites: courses 202, 231. Corequisite for course 216A: course 224. Course 216A is requisite to 216B, which is requisite to 216C. Assessment and management of health problems affecting adult/gerontology population from late adolescence to senescence in acute care settings. Synthesis of knowledge from advanced courses
in pathophysiology, pharmacotherapeutics, health promotion, and evidence-based psychosocial care and cultural constraints. Letter grading.

220. Theories of Instruction and Learning in Nursing. (3) Lecture, two hours. Theories of learning, curriculum and program development, and principles and techniques of evaluation. Examination of educator role of advanced practice nurse in variety of settings and with diverse cultural and socioeconomic groups. Opportunities provided for skill development in use of computer-based information systems and development of instructional aids. Letter grading.


224. Advanced Pharmacology for Advanced Practice Registered Nurses. (3) Lecture, five hours. Requires: course 221A. Basic pharmacological principles in additional to clinical knowledge and skills necessary for patient-centered care with stable acute or chronic conditions. Letter grading.

225A-225B. Advanced Pharmacology I, II (3–2) Lecture, three hours (course 225A) and two hours (course 225B). Lecture, five hours. Requisite: course 225B. Basic pharmacological principles in addition to clinical knowledge and skills necessary for patient-centered care with stable acute or chronic conditions. Focus on major pharmacotherapeutics to include mechanisms of action, pharmacokinetics, indications, and adverse effects. Discussion of quality and safety of pharmacological interventions in clinical practice, with emphasis on collaboration and communication of pharmacists and evidence-based practice (e.g. current guidelines). Letter grading.

229A-229B-229C. System-Based Healthcare I, II, III (1–1–1) Seminar, two hours. System-based healthcare where students focus on context of medical decision-making, including team, hospital, culture, politics, economics, law, and personal bias. Topics include legal, political, and moral aspects of sexual assault and abuse, and health disparities. Letter grading.


230B. Advanced Pathophysiology II. (2) Lecture, two hours. Requisite: course 230A. In-depth examination of pathophysiologic processes that underlie human illness and disease across all body systems including cardiovascular, renal, endocrine, musculoskeletal, respiratory, gastrointestinal, immunologic, and nervous systems. Letter grading.

231. Advanced Pathophysiology for Advanced Practice Registered Nurses. (4) Lecture, four hours. In-depth examination of pathophysiological processes that underlie human illness and disease, with detailed study of key concepts in primary care. Letter grading.

232. Human Responses to Aging and Chronic Illness. (2 or 4) Lecture/discussion, four hours. Focus on understanding human responses to aging and chronic illness. Letter grading.

233. Human Responses to Chronic and Critical Care. (3) Lecture, four hours. Focus on understanding human responses to chronic and critical care. Letter grading.

234. Pediatric Primary Care for Family Nurse Practitioners. (4) Lecturer, three hours. Requisite: course 200. Preparation of family nurse practitioners to assume responsibility for health promotion and illness prevention, and maintenance and management of common developmental, behavioral, acute, and chronic health problems. Letter grading.

235. Assessment and Management in Pediatric Acute Care I, II (2–3) Lecture, three hours. Two-course sequence. Focus on the student as a family nurse practitioner. Focus on child health assessment, diagnosis, and management of common pediatric conditions. Letter grading.

237A-237B. Assessment and Management in Pediatric Acute Care I, II (3–3) Lecture, three hours. Two-course sequence. Focus on the student as a family nurse practitioner. Focus on child health assessment, diagnosis, and management of common pediatric conditions. Letter grading.

238A. Assessment and Management in Pediatric Primary Care. (4) Lecture, four hours. Requisite: course 237B. Focus on child health assessment, diagnosis, and management of common pediatric illnesses. Letter grading.

239A-239B-239C. Adult/Gerontology Primary Healthcare for Advanced Practice Registered Nurses I, II, III (4–4–4) Lecture, four hours. Requisites: courses 200, 224, 231. Course 239A is requisite to 239B, which is requisite to 239C. Focus on assessment, diagnosis, and management of common episodic and chronic adult health problems and conditions, including urgent care, for family and adult/gerontology primary care. Letter grading.

242F. Biobehavioral Foundations of Neuropsychiatric Nursing Care. (4) Lecture, four hours. Biobehavioral research from variety of disciplines, including nursing, for application to treatment of neurological dysfunction. Exploration of research underlying treatment interaction in cognitive, addictive, and affective dysfunctions, with emphasis on developing a biobehavioral nursing approach. Letter grading.

243. Theoretical Foundations of Clinical Nurse Specialist Practice. (4) Lecture/discussion, four hours. Theoretical foundations of clinical nurse specialist practice, including systems theory, behavioral theory, and decision-making models of research utilization. Emphasis on application of relevant theories to clinical nurse specialty practice roles in healthcare systems through case-study analysis, with emphasis on application in settings which include culturally diverse populations. Letter grading.

245. Meeting Health-Related Needs in Underserved Populations. (4) Lecture, four hours. Examination of systematic barriers within healthcare settings that limit access to those in greatest need of culturally appropriate interventions. Unmet healthcare needs often result in health disparities and compromised quality of life among underserved, low income, and marginalized populations. Analysis of current evidence-based strategies and interventions designed to address these clinical problems and improve outcomes in culturally competent manner. Preparation of students to function within context of healthcare financing, limited access, and public policy. Letter grading.

250. Ethical Issues, Social Justice, and History of Nursing. (5) Lecture, five hours. Interplay of social, economic, cultural, and historical forces that have shaped and continue to influence the U.S. form background for study of ethical issues related to role of nurses as advocates for social justice and safe, effective, high-quality patient-centered care in contemporary society. Situated within context of history of nursing, with emphasis on human rights, civil rights, and patient rights. Discussion of role of professional nursing within healthcare arenas in relation to ethical principles, cultural competence, evidence-based practice, and human diversity. Letter grading.

255. Global Health Elective: Globalization, Social Justice, and Human Rights. (2 or 4) Lecture, two hours. Exploration of theories, issues, debates, and pedagogy associated with globalization, social justice, and human rights and how these perspectives influence human health and well-being. Provides students with unique opportunity to explore these topics within classroom, via Internet and other technologies, and in other classrooms located around globe. Students, through collaborative projects around world, reflect on how globalization shapes and transforms local communities and national cultures. Concurrently scheduled with course C155. Letter grading.

256. Secondary Prevention. (4) Lecture, four hours. Requisites: courses 252A, 252B. Focus on prevention of chronic disease and evidence-based secondary prevention screening strategies for early detection of disease to reduce morbidity and mortality across lifespan and to develop nursing care interventions. Use of integrated conceptual frameworks addressing individual, family, community, health care systems factors, social environmental systems, and policies to identify factors influencing screening and resulting health disparities in order to adapt plans for care. Nursing interventions for promoting screening address barriers and facilitators, controversies, as well as utilize existing strengths and supportive mechanisms and orientations. Discussion and application of specific micro-level factors including screening for physical health and mental health disorders along with associated behavioral factors and macro-level, built environment influences. Letter grading.

256. Professional Role Issues in Advanced Practice Registered Nursing. (3) Lecture, three hours. Requisites: courses 411A or 411B. Focus on development of organizational, legal, ethical, and healthcare policy issues in relation to delivery of healthcare services by advanced practice registered nurses in evolving healthcare system. Letter grading.

267. Health Care Policy. (3) Lecture, three hours. Requisites: for MEON students, courses 266, 268, 269; for dual NP/CNS students, courses 245, 269, 445. Analysis of healthcare policies and how policies impact patient outcomes, clinical practice, health care
delivery, and clinician well-being. Concepts related to policy making, formulating health care policy, how to affect political processes, and stakeholder involvement in policy decision making are covered. Development of understanding of increasing levels of public, governmental, and third party participation in and scrutiny of health care system. Discussion of assembly bills effect on nursing, emphasis on clinical nurse leadership and advocacy. Satisfies course requirement for CNL certification. Letter grading.


286. Variable Topics in Nursing. (4) Lecture, three hours; discussion, one hour. Variable topics; consult Schedule of Classes for topics to be offered in specific term. May be repeated for credit. SU grading.

291A. Applied Statistics and Analytics for Health Sciences Research I. (4) Lecture, three hours; labora- tory, one hour. Requisite: doctoral standing or consent of instructor, introductory statistics course. Introduction to applied statistics that gain skills to understand, conduct analyses, and interpret results of analyses to answer simple comparative and relationship research questions relevant to health science research. Topics include general inference and probability, distributions, effect size, analyses for description, data visualization, parametric and nonparametric tests for simple comparisons and relationships, and research design and management. Students conduct analyses with statistical software and interpret results from their analyses and from research reports in literature. Letter grading.

291B. Applied Statistics and Analytics for Health Sciences Research II. (4) Lecture, three hours; discus- sion, one hour. Requisites: course 291A, doctoral standing, or consent of instructor. Focus on linear statistical models and other analytic techniques to examine complex relationships and comparisons. Approach primarily from applications and interpretation perspective. Students evaluate statistical/analytical results from research literature, analyze data using quantitative multivariate techniques, and interpret results. Introduction of concepts and interpretation of broad range of multivariate statistical and analytical approaches is provided (linear and logistic regression and survival models), factor analysis, multi-factor and repeated measures analysis of variance, mixed effects models, machine-learning analytic techniques for big data, and other selected approaches. Students utilize several of approaches to analyze research data. Letter grading.

291C. Special Topics in Applied Statistics and Ana- lytics for Health Sciences Research III. (4) Lecture, three hours; discussion, one hour. Requisites: course 291B, doctoral standing, or consent of instructor. Focus on statistical models and analytic techniques to examine complex relationships and comparisons. Approach primarily from applications and interpretation perspective. Students evaluate analytical results from research literature, data sets and interpret results using selected quantitative approaches. Introduction of concepts and interpretation of results from selected quantitative models can address complex nursing and other health sciences research questions. Approaches to be studied include selected topics from mediation models, interactions and effect modification, structural equation modeling, mixed effect models, multilevel modeling, mixed data, secondary analysis, weighted survey data, meta analysis, genomic statistics, artificial intelligence/machine learning approaches for data modeling. Letter grading.

295A. Grant Writing I: Scientific Proposal Develop- ment. (3) Seminar, three hours. Requisites: courses 202, 205A, 206A, 210A, Biostatistics 100B. Introduction to grant writing, with focus on preparing application for National Student Research Award (NSRA) or similar award. Discussion of requirements of various extramural and specialty organization funding sources and identification of evaluation criteria. Emphasis on preparing application to facilitate doctoral and postdoctoral research, research activi- ties, and professional development. Letter grading.

295B. Grant Writing II: Scientific Proposal Develop- ment. (4) Seminar, four hours. Requisites: courses 202, 205A, 206A, 210A, Biostatistics 100B. Developed to design proposals to request for proposals (RFPs) from federal or state level and non-profit organizations. Incorporation of requirements of various extramural and specialty organizations, intramural funding sources, and evaluation criteria in grant writing. Emphasis of role of external funding to facilitate doctoral and post-doctoral research, research activity, and professional development. Letter grading.

295C. Nursing Science Seminars. (2) Seminar, two hours. Requisite: course 295A. Introduction to grant writing, with focus on preparing applications for National Student Research Award. Discussion of requirements of various extramural and specialty organization funding sources, and evaluation criteria identified. Role of external funding to facilitate doctoral and post-doctoral research, research activities, and professional development. SU grading.

M298. Interdisciplinary Response to Infectious Dis- ease Emergencies: Nursing Perspective. (4) (Same as Community Health Sciences M256, Medicine M210A). Lecture, three hours; discussion, one hour. Designed to instill in professional students ideas of common emergency health problems and coordinated response, with specific at- tention to bioterrorism. Examination of tools to help students prevent, detect, and intervene in infectious disease emergencies. Interdisciplinary sessions also attended by students in Schools of Dentistry, Medicine, and Public Health during weeks two through five. Letter grading.

299A. Ethical Conduct in Research. (2) Seminar, two hours. Examination of historical and current issues of ethical integrity at each stage of research process in relation to scientific underpinnings and responsibilities of authorship, data management, and handling of misconduct in research with both human and animal subjects. Systematic instruction on ethical and responsible conduct of research and protection of research subjects as students create their own application for research. Letter grading.

299B. Nursing Research Mentorship. (1) Seminar. Discussion of nursing research, three hours. Requisites: courses 202, 205A, 206A, 207, 208, 210A, 210B, 295A, Biostatistics 100A, 210A. Special topics course for doctoral students who have completed required coursework and are ready to advance to doctoral candidacy. Discussion topics range from identifying areas of research/laboratory experiences, and engagement in planning for and evaluation of students’ mentored experiences on weekly basis. Letter grading.

299C. Nursing Research/Laboratory Experiences. (4) Seminar/discussion, one hour; research/laboratory, three hours. Requisites: courses 202, 206. Seminars and research/laboratory-based experiences to assist students to prepare for the dissertation, with focus on research methodology and mentorship. S/U grading.

299D. Nursing Education Seminar. (2) Seminar, two hours. Requisite: doctoral standing. Seminar to assist students to prepare for careers in academic settings, with focus on teaching. S/U grading.

375. Teaching Apprentice Practicum. (1 to 4) Sem- inar, to be arranged. Preparation: apprentice per- sonnel development as teaching assistant, associate, or fellow. Teaching apprentice under active guid- ance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. SU grading.


Clinical Scholarship for Evidence-Based Pract- ice. (3) Lecture/seminar, three hours. Requisite: doctoral standing. Provides interdisciplinary experiences in sciences of quality improvement and patient safety within health care settings. Addresses history and evolution of quality movement, theories and thought leaders, current quality of care issues, emerging health disparities and unmet needs. Students are exposed to professional services, research and innovations, national and international centers and organizations, and academic/specialty organizations, intramural and specialty organizations, intramural funding sources, and evaluation criteria in grant writing. Emphasis on role of external funding to facilitate doctoral and post-doctoral research, research ac- tivity, and professional development. Letter grading.

406. Clinical Prevention and Population Health. (3) Lecture/seminar, three hours. Requisite: doctoral standing. Enables DNP students to integrate, synthe- size, and apply key concepts introduced in previous coursework in order to incorporate core components into practice. Evidence-based practice, clinical preven- tive service and health promotion, health systems policy, and population and community aspects of practice are emphasized through focus on current health issues. Letter grading.

407. Clinical Innovation and Systems Leadership for Quality Improvement. (3) Lecture/seminar, three hours. Requisite: doctoral standing. Provides interdisciplinary perspective on organizational leadership and systems thinking that is focused on organizational leadership and systems thinking in health care. Students learn to formulate and execute strategies in related to scientific underpinnings for DNP practice. Letter grading.


409. Analytical Methods for Evidence-Based Pract- ice. (3) Lecture/seminar, three hours. Requisite: doctoral standing. Advanced concepts on research methods and measurement strategies that are applica- ble to support advanced practice practice. Evaluate, and utilize data from various sources in- cluding research, quality improvement initiatives, and implementation of technology. Students are introduced to the use of strategic planning, organizational culture, program de- velopment and implementation. Special focus placed on role of DNP leader in developing and leading clin- ical quality and safety initiatives. Letter grading.

410. Analytical Methods for Evidence-Based Pract-ice. (3) Lecture/seminar, three hours. Requisite: doc- toral standing. Advanced concepts on research methods and measurement strategies that are applica- ble to support advanced practice practice. Evaluate, and utilize data from various sources in- cluding research, quality improvement initiatives, and implementation of technology. Students are introduced to the use of strategic planning, organizational culture, program de- velopment and implementation. Special focus placed on role of DNP leader in developing and leading clin- ical quality and safety initiatives. Letter grading.


411. Information Technology for Nursing Practice. (2) Lecture, two hours. Requires: doctoral standing. Prepares students to obtain knowledge and skills related to information technology and patient care technology. Preps DNP graduates to apply new knowledge, manage individual and aggregate information, and assess efficacy of patient care technology appropriate to specialized area of practice. Allows students to use information technology to implement quality improvement initiatives, support practice administrative decision-making. Students gain ability to perform basic computer skills to appropriately process data and extract from practice systems and databases. Letter grading.

416A-416B. Adult/Gerontology Acute Care Nurse Practitioner Practicum I, II. (2-6) Clinic practicum, six hours (course 416A) and 16 hours (course 416B). Enforced requisite: course 440. Course 416A is enforced to 416B. Assessment and therapeutic interventions for selected health problems in adult/gerontology populations. Developmental, health promotion, and maintenance needs of clients in relation to family, social, and cultural structures. Students complete minimum of 160 direct clinical hours. Letter grading.

416C-416D. Adult/Gerontology Acute Care Nurse Practitioner Practicum III, IV. (6 each) Clinic practicum. Course 416C is enforced to 416D. Clinical experiences for the third and fourth of five clinical practica designed to prepare family nurse practitioners with knowledge, skills, and competencies necessary to assume role of primary healthcare provider for families and individual patients across lifespan. Use of family-focused framework of care for those who experience common acute and chronic illness, disability, and developmental transitions. Emphasis on health promotion, maintenance, and risk reduction interventions across wide range of diverse populations. Focus on context of community, cultural awareness, and practice in interdisciplinary teams. Students complete minimum of 80 direct clinical hours. Letter grading.

429B. Family Nurse Practitioner Practicum II. (4) Clinic practicum, 12 hours. Requires: course 429A. Second of five clinical practica designed to prepare family nurse practitioners with knowledge, skills, and competencies necessary to assume role of primary healthcare provider for families and individual patients across lifespan. Use of family-focused framework of care for those who experience common acute and chronic illness, disability, and developmental transitions. Emphasis on health promotion, maintenance, and risk reduction interventions across wide range of diverse populations. Focus on context of community, cultural awareness, and practice in interdisciplinary teams. Students complete minimum of 80 direct clinical hours. Letter grading.

429C. Adult/Gerontology Acute Care Nurse Practitioner Practicum III, IV. (6-9) Clinic practicum, 18 hours (courses 429C, 429D) and 27 hours (course 429E). Requires for course 429C; course 429B; for 429D: courses 429C, 429E; for 429E: fourth, fifth of five clinical practica designed to prepare family nurse practitioners with knowledge, skills, and competencies necessary to assume role of primary healthcare provider for families and individual patients across lifespan. Use of family-focused framework of care for those who experience common acute and chronic illness, disability, and developmental transitions. Emphasis on health promotion, maintenance, and risk reduction interventions across wide range of diverse populations. Focus on context of community, cultural awareness, and practice in interdisciplinary teams. For courses 429C and 429D, students complete minimum of 160 direct clinical hours; for course 429E, they complete minimum of 240 direct clinical hours. Letter grading.


438A. Primary Care Pediatric Nurse Practitioner Clinical Practicum I, I (3 to 4) Clinic practicum, 10 to 12 hours. Corequisite: course 238A. Comprehensive assessment and anticipatory guidance for children and families to promote child wellness. Clinical practicum, seminar, and other learning activities demonstrate application and evaluation of evidence-based research and clinical guidelines in promotion of pediatric wellness. Students complete minimum of 100 direct clinical hours. Letter grading.

438B. Primary Care Pediatric Nurse Practitioner Clinical Practicum II. (3 to 6) Clinic practicum, 10 to 12 hours. Corequisite: course 238A. Advanced comprehensive assessment, diagnosis, and management of common pediatric illnesses and disabilities. Students complete minimum of 160 direct clinical hours. Letter grading.

438C. Primary Care Pediatric Nurse Practitioner Clinical Practicum III. (6 to 10) Clinic practicum, 20 to 32 hours. Corequisite: course 238C. Third course in three clinical practicum sequence with emphasis on advanced comprehensive assessment, diagnosis, and management of chronic and acute pediatric illnesses in ambulatory setting. Clinical practicum, seminar, and other learning activities demonstrate application and evaluation of evidence-based research and clinical guidelines in pediatric chronic and acute illnesses. Letter grading.


439B. Adult/Gerontology Primary Care Nurse Practitioner Practicum II. (6) Clinic practicum, 18 hours. Requires: course 439A. Corequisite: course 239B. Continuation of course 439A for advanced practice nurses, with emphasis on nursing management of acute and chronic health problems in selected populations. Developmental needs of clients in relation to family, social, and cultural structures. Students complete minimum of 80 direct clinical hours. Letter grading.

439C. Adult/Gerontology Primary Care Nurse Practitioner Practicum III. (6) Clinic practicum, 18 hours. Requires: course 439A. Corequisite: course 239C. Third clinical practicum course for advanced practice nurses, with focus on nursing assessment and intervention in common illness-associated symptoms and conditions. Developmental, health promotion, and maintenance needs of clients in relation to family, social, and cultural structures. Students complete minimum of 160 direct clinical hours. Letter grading.

439D. Adult/Gerontology Primary Care Nurse Practitioner Practicum IV. (6) Clinic practicum, 18 hours. Requires: courses 239C, 439C. Residence in advanced practice role where student assumes primary responsibility for assessment, diagnosis, management, and evaluation of care provided to children and families in acute care setting under supervision of faculty and preceptors. Complete minimum of 220 direct clinical hours. Letter grading.
knowledge in advanced practice role. Students complete minimum of 160 direct clinical hours. Letter grading.

439E. Adult/Gerontology Primary Care Nurse Practitioner Practicum V. (5) Clinic practicum, six hours. Prerequisites: courses 439A through 439D. Designed to prepare adult/gerontology primary care nurse practitioners with knowledge, skills, and competencies necessary for role of primary health care providers for young adults, adults, and older adults. Use of patient-centered framework of care for those who experience common acute and chronic illness, disability, and complex health conditions. Emphasis on diverse clinical settings to implement evidence-based practice guidelines and to critically analyze and adapt healthcare interventions based on individualized assessments, with emphasis on context of community, cultural awareness, and practice in interdisciplinary teams. Students complete minimum of 240 direct clinical hours. Letter grading.


441. Advanced Pediatric Diagnostics. (3) Lecture/clinical practicum, three hours. Requisite: course 441. Designed for advanced-care pediatric nurse practitioner students. Advanced diagnostic reasoning and skills in management of infants, children, and adolescents with complex acute, critical, and chronic health conditions. Focus on evidence-based knowledge for pediatric assessment and management of selected health conditions as attributes of diagnostic tests, test interpretation, and invasive procedures to stabilize or monitor acute, critical, or chronic patient. Lectures and other learning activities demonstrate application and evaluation of evidence-based research and clinical guidelines in pediatric population. Letter grading.

444. Adult/Gerontology Acute Advanced Assessment and Clinical Diagnosis II. (2) Clinic practicum, six hours. Enforced requisite: course 440. Practice foundations for advanced physical assessment and clinical diagnostic reasoning, with focus on diagnostic or therapeutic or therapeutic-related complications, and follow-up care in clinical setting. S/U grading.


462. Maternity Nursing. (5) Lecture, three hours; clinical, six hours. Prerequisites: courses 204, 260, 465A, 465B, 465C. Pathophysiological and psychosocial aspects of assessment and management for selected acute and emergent problems of maternity-newborn patients, clinical decision making in relation to pathophysiological and psychosocial aspects of assessment and management of newborn infants, children, and adolescents with complex acute, critical, and chronic health conditions. Focus on evidence-based knowledge for clinical decision making in relation to pathophysiological and psychosocial aspects of assessment and management of newborn infants, children, and adolescents with complex acute, critical, and chronic health conditions. Focus on evidence-based knowledge for clinical decision making in relation to pathophysiological and psychosocial aspects of assessment and management of selected health conditions as attributes of diagnostic tests, test interpretation, and invasive procedures to stabilize or monitor acute, critical, or chronic patient. Lectures and other learning activities demonstrate application and evaluation of evidence-based research and clinical guidelines in pediatric population. Letter grading.

465B. Tertiary Prevention and Care of Medical-Surgical Patients and Families. (6) Lecture, four hours; clinical, six hours. Requisites: courses 225A, 230A, 230B, 252A, 252B, 465A. Pathophysiological and psychosocial aspects of assessment and management for selected acute and emergent problems of adult patients with complex illness including multifaceted assessment, health history, and diagnostic reasoning skills, emphasis on social, cultural, and developmental influences. Integration of knowledge of pathophysiology, diagnostics, pharmacology, therapeutic interventions, and communication concepts as applied to care of adult patients and their families. Emphasis on concept of nurse as scientist with critical and contextual thinking skills and diagnostic reasoning. Integration of knowledge of pathophysiology, pharmacology, stress and adaptation, adult development theory, therapeutic interventions, patient safety, evidence-based practice, and concepts as applied to care of complex medical-surgical patients, with complex and comorbid conditions, and their families. Concept of nurses as bedside scientists, with emphasis on critical and contextual thinking skills and diagnostic reasoning. Nursing process, ethical principles, clinical research, evidence-based practice, and clinical thinking that maximize patient safety and quality care for complex and comorbid conditions. Letter grading.


467. Clinical Internship: Integration. (12) Clinical, 36 hours. Requisites: courses 268, 461, 462, 463, 464, 465A, 465B, 465C. Supervised practicum experience within clinical setting as part of interdisciplinary clinical care team, with focus on application of theory in clinical setting and interpretation of assessment and diagnostic data for purpose of planning, implementing, and evaluating course of care for patients, both as individuals and cohorts. Students design and complete quality improvement project that contributes to unit’s goals and objectives. Students implement advanced-level assessment, health history, and diagnostic reasoning skills, and emphasis on social, cultural, and developmental influences. Integration of knowledge of pathophysiology, diagnostics, pharmacology, therapeutic interventions, family-centered care, and ethical and legal principles as applied to pediatrics. Students demonstrate leadership, evidence-based practice, problem-solving, and critical thinking strategies to improve patient safety, care quality, and health outcomes. Supervised practicum experience in interdisciplinary team in clinical interpretation of assessment and diagnostic data for purpose of planning, implementing, and evaluating nursing care in pediatrics. Emphasis on collaborative practice across complex health care systems. Integration of information management and technology to facilitate effective communication and support clinical decision making. Letter grading.

465A. Foundational Concepts for Tertiary Prevention and Care of Medical-Surgical Patients and Families. (4) Lecture, three hours; clinical, three hours. Requisites: courses 174A, 230A, 250, 254A. Examination of nursing management of medical-surgical patients with common health problems of adults. Theory content in basic assessment, health history, and diagnostic reasoning for selected health problems, with emphasis on social, cultural, and developmental influences. Integration of basic knowledge of pathophysiology, stress and adaptation, adult development theory, therapeutic interventions, and communication concepts as applied to care of medical-surgical patients and their families across adult lifespan. Introduction to concept of nurse as bedside scientists, with emphasis on critical and contextual thinking skills and diagnostic reasoning. Integration of knowledge of pathophysiology, diagnostics, pharmacology, therapeutic interventions, and communication concepts as applied to care of medical-surgical patients and their families. Letter grading.

470A. DNP Scholarly Project Course I: Project Conceptualization and Planning. (2) Lecture, two hours; clinical, four hours. Requisites: courses 202, 402, 403, 404, 405, 408. Preparation: successful completion of first year of DNP didactic coursework. DNP students gain knowledge, skills, and abilities necessary to develop evidence-based project proposal and plan, which addresses practice issue affecting chosen microsystem. Provides structured didactic content and application of student’s DNP scholarly project. Letter grading.

470B. DNP Scholarly Project Course II: Project Proposal. (8) Lecture, two hours; clinical, six hours. Requisite: course 470A. DNP students develop full DNP scholarly project proposal that reflects synthesis of student’s knowledge base, conceptual framework and work in an area of interest or expertise under direction of faculty mentor. Provides structured didactic content and application of student’s DNP scholarly project. Letter grading.

470C. DNP Scholarly Project Course III: Project Implementation. (8) Lecture, two hours; clinical, six hours. Requisite: course 470B. Continued development of evidence-based practice project, and continues to implement chosen DNP scholarly project proposal. Students assume role of leadership in interprofessional collaboration, consultation, and partnership. Students receive feedback from faculty committee chair and peer feedback as they become engaged in microsystem where...
OBSTETRICS AND GYNECOLOGY

David Geffen School of Medicine
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Obstetrics and Gynecology
310-206-6575

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Beth Y. Karlan, MD, Vice Chair,
Women’s Health Research
Erica D. Oberman, MD, Vice Chair,
Education
Jeaninne Rahimian, MD, Vice Chair,
Clinical Affairs

Overview

The medical student program in the Department of Obstetrics and Gynecology is designed to provide students with firm background in the essentials of women’s reproductive health. The educational objectives are set forth by the Association of Professors of Gynecology and Obstetrics (APGO). Through a combination of didactic instruction and supervised clinical experience, students acquire the relevant clinical skills of history taking and physical examination and learn reproductive physiology from infancy to the postmenopausal period; antepartum, intrapartum, and postpartum obstetric care; and recognition and management of various gynecologic disorders. Students work in ambulatory clinics and on inpatient services during a four-week core clerkship. Greater depth of experience is provided by elective clerkships during the fourth year that emphasize subspecialties such as maternal/first medicine, reproductive endocrinology and infertility, gynecologic oncology, and reproductive health.

For more details on the Department of Obstetrics and Gynecology, see the department website.

Obstetrics and Gynecology

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

199. Directed Research in Obstetrics and Gynecology. (2 to 8) Tutorial, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper required. May be repeated for credit. Individual contract required. P/NP or letter grading.

OPHTHALMOLOGY

David Geffen School of Medicine
2-142 Stein Eye Institute
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Ophthalmology
310-825-5053

Anne L. Coleman, MD, PhD, Chair
Anthony J. Aldave, MD, Vice Chair,
Academics
Anthony C. Arnold, MD, Vice Chair,
Education
Alfredo A. Sadun, MD, PhD, Vice Chair,
Doheny Eye Centers-UCLA
Alapakkam P. (Sam) Sampath, PhD,
Associate Director, Jules Stein Eye Institute

Overview

Ophthalmology is the medical science that encompasses knowledge concerning the eyes and the visual system. Derived from many basic and clinical fields, this knowledge must be synthesized by the physician and applied to the prevention, diagnosis, medical management, and surgical therapy of ocular disease.

In response to the steadily increasing incidence and growing importance of ocular disorders, the Department of Ophthalmology as well as the Stein Eye Institute and Doheny Eye Institute are closely coordinated to form a comprehensive center for research in the sciences related to vision, for the care of patients with disease of the eyes and related structures, and for education in the broad field of ophthalmology, all with community outreach.

The Department of Ophthalmology provides instruction and electives to medical students during the first, second, third, and fourth years at the Stein Eye Institute and the Doheny Eye Centers UCLA. Through lectures, demonstrations, discussions, and the opportunity to observe patients and review data on cases with a variety of ocular conditions, students gain knowledge and experience in ophthalmology.

For more details on the Department of Ophthalmology and courses offered, see the department website.

Ophthalmology faculty information is available form the department.
Overview

Oral biology is the area of knowledge that deals with the development, structure, and function of the oral tissues and their interrelationships with other organ systems in normal and disease states. It is a multidisciplinary field that includes cell biology, bone biology, molecular biology, biochemistry, neuroscience, immunology, microbiology, and virology. The objective of the graduate program is to provide students with a sound foundation in these areas in order to pursue an academic or research career.

Graduate Study

A combined DDS/Oral Biology MS or PhD, or advanced certificate training/Oral Biology MS or PhD, is also offered.

Graduate Major

Oral Biology MS, PhD

Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Oral Biology

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP or letter grading.

Upper-Division Course


205A. Methodology in Research Design and Data Analysis. (2) Lecture, two hours. Designed for graduate oral biology students. Integration of didactic lectures in descriptive and inferential statistics and in research design (emphasis on experimental design), presentations of statistical software, and open discussion of specific needs of oral biology students when they design their research. Letter grading.


205C. Advanced Seminar: Comparative Effectiveness and Evidence-Based Research. (2) Seminar, one hour; discussion, one hour. Requisites: courses 205A, 205B (may be taken concurrently). Hands-on experience in process of systematic review, as shared mechanism in comparative effectiveness and evidence-based research. Specialized topics include level and quality of evidence assessments, acceptable sampling analysis, meta-analysis and meta-regression, and Bayesian-derived decision making following utility versus logic models. Students work on examples of their choice and interest in oral biology, medicine, and orthodontics. Letter grading.

206. Current Topics in Oral Immunology. (2) Lecture, two hours. Preparation: basic immunology. Discussion and analysis of current research dealing with immunological issues related to oral health, including HIV, opportunistic oral infections, periodontal pathology, oral immunopathology, caries immunology, endodontic immunology, etc. Letter grading.

207. Development and Regeneration of Craniofacial Complex. (2) Lecture, two hours. Focus on cell biology and molecular mechanisms that direct formation of different vertebrate head structures during embryonic development, as well as their abilities to regenerate in adults. Examination of genetic and signaling regulation of craniofacial patterning, morphogenesis, cell differentiation, evolution, and stem cell-based organ regeneration, through both didactic lectures and critical reading of primary research literature. Letter grading.

208. Genomics and Proteomics in Oral Biology Research. (2) Lecture, one hour; discussion, one hour. Introduction to fundamentals and technical aspects of genomics and proteomics and analysis of data derived thereof. Discussion of implications and applications of genomics and proteomics in diagnostic protocols such as salivary diagnostics. Letter grading.

209. Scientific Ethics. (2) Seminar, two hours. Required course in scientific ethics for graduate students in Oral Biology MS and PhD programs and for NRSA trainees in School of Dentistry. Letter grading.

211. Biology of Temporomandibular Joint. (2) Lecture, two hours. Anatomy, histology, physiology, and biomechanics of temporomandibular joint (TMJ) and related musculature. Pain mechanisms, sensorimotor integration, and motor mechanisms in TMJ function, and current methods of TMJ imaging. S/U or letter grading.

212. Proseminar: Oral Biology Research. (2) Seminar, one hour; discussion, one hour. Focus on basic, translational, and clinical advances of salivary and related musculature. Genomics and proteomics and analysis of data derived thereof. Discussion of implications and applications of genomics and proteomics in diagnostic protocols such as salivary diagnostics. Letter grading.

Faculty Roster

Professors

Shen Hu, PhD, MBA
Anahid Jewett, MPH, PhD
Mo K. Kang, DDS, MS, PhD (Jack A. Weichman Professor of Endodontics)
Reuben H. Kim, DDS, PhD (Naomi and Jim Elision Endowed Professor)
Yong Kim, PhD, in Residence
Renate Lux, PhD
Diana V. Messadi, DDS, MMSc, DMSc
Ichiro Nishimura, DDS, DMSc, DMD
Igor Spigelman, PhD
Sotiris Tetradas, DDS, PhD
Cun-Yu Wang, DDS, PhD (Dr. No-Hee Park
Lux, PhD in Residence

Associate Professor

Alireza Moshaverinia, DDS, MS, PhD, FACP
David T. Wong, DMD, DMSc

Assistant Professor

Jimmy K. Hu, PhD

Adjunct Professor

Ki-Hyuk Shin, MS, PhD

Adjunct Associate Professor

Fang Wei, PhD

Professor of Clinical Dentistry

Fariba S. Younai, DDS
munology, bone biology, microbiology, cancer, and salivary genomics), followed by discussions led by course chair. Letter grading.

214. Current Research in Osteoimmunology. (2) Seminar, one hour; discussion, one hour. Exploration of oral bone biology and immunology and how both systems talk to each other. Topics include immune modulation of bone metabolism, osteoblastic niche for hematopoietic progenitors, adult bone marrow stem cell changes, and osteoimmunology in at-risk populations. Letter grading.

215A. Fundamentals of Immunology. (2) Lecture, two hours. Basic cellular and molecular mechanisms involved in responses mediated by immune effectors, with emphasis on immunopathology involved in autoimmunity, cancer, and immunodeficiency syndromes. Letter grading.

215B. Current Advanced Research Topics in Immunology. (2) Seminar, one hour; discussion, one hour. Overview of rapidly changing discoveries in very important field of immunology. Directed and student-led discussions of current cutting-edge research developments in immunology. Letter grading.

220. Integrative Biology and Biomaterials Science in Relation to Dentistry. (2) Lecture, one hour; laboratory, 90 minutes. Introduction to integrative biology and biomaterials science by bringing together diversity of disciplines that complement one another to unravel complexity of biology in biomaterials in relation to dentistry. Integration of bioengineering, materials science, cell biology, and dentistry. Fundamentals of materials science in relation to dentistry, stem cell biology, and knowledge necessary to participate in dental and biomedical research, innovation, and product development. Letter grading.

221. Advanced Dental Materials. (2) Lecture, one hour; laboratory, 90 minutes. Preparation of individuals for academic and research careers in dental materials science or broader area of biomaterials relevant to clinical dental practice. Fundamentals of dental materials and knowledge necessary to participate in research and product development. Introduction to materials science, with focus on major classes of materials used in dentistry, including polymers, metals, and ceramics, and providing up-to-date information on dental materials currently used in clinical dentistry. Letter grading.

228. Craniofacial Growth and Development. (2) Lecture, two hours. Preparation: strong background in histology, anatomy, and physiology. Students acquire, from scientific literature discussed in lecture/seminar format, advanced knowledge of relevant aspects of human biology as they relate to craniofacial growth and development. Craniofacial region. Students required to present seminars on assigned topics that aid their understanding and analysis of a given topic that has application to their specific and professional fields. Letter grading.

227. Dental Embryology and Histology. (2) Lecture, two hours. Description and interpretation of important stages in development of orofacial apparatus and histological features of its component tissues. Critique of scientific literature relevant to course content and analysis of current state of knowledge about selected features of orofacial apparatus that are of significance to clinical dental specialists. S/U or letter grading.

228A. Culture, Ethnicity, and Health: Implications for Oral Biology and Medicine. (2) Seminar, one hour; discussion, one hour. Examination of sociocultural, biologic, and genetic factors that influence health and well-being, experience and distribution of illness, prevention and treatment of disease, health disparities, human resource management, and utilization of public health systems. Theory, perspectives, and methods from public health sciences. Letter grading.

229B. Anthropological Perspectives on Global Health: Implications for Oral Biology and Medicine. (2) Seminar, one hour; discussion, one hour. What factors determine health, illness, and disease in global context, including political ecology of infectious diseases, child health issues, women’s health and reproductive health, global trade in legal and illegal drugs, demography and health transition, structural adjustment problems, and global climate change. Letter grading.

234. Seminar: Developmental Neuroendocrin-immunology. (2) Lecture, two hours. Designed for graduate students. Psychological and physiological processes intertwine, and one important aspect of psychoneuroimmunological research is characterization of mechanisms that underlie these interactions. Examination of the current literature on neuroimmune interaction from developmental perspective. S/U or letter grading.


273. Research in Clinical Immunology and Lymphology. (2) Lecture, one hour; discussion, one hour. Forum for discussion of cutting-edge topics in immunology and lymphology from clinical perspective. Emphasis on immune surveillance and lymphatic drainage of oral pathologies associated with AIDS and other diseases. Letter grading.

275. Molecular and Cell Biology for Oral Biology Graduate Students. (3) Lecture, two hours; literature review, one hour. Advanced course on prokaryotic and eukaryotic molecular and cell biology, with emphasis on applications in dental research. Letter grading.


19. Fial Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research of student majoring in or weekly, three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required. Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Course

199. Directed Research in Orthopaedic Surgery. (2 to 8) Tutorial, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper required. May be repeated for credit. Individual contract required. P/NP or letter grading.

ORTHOPAEDIC SURGERY

David Geffen School of Medicine
76-143 Center for Health Sciences
Box 956902
Los Angeles, CA 90095-6902

Orthopaedic Surgery 310-825-6557
Nicholas M. Bernthal, MD, Interim Chair
Sharon L. Hame, MD, Director, Medical Student Education

Overview

The medical student program in the Department of Orthopaedic Surgery is designed to provide students with experience in understanding the diagnosis and management of disorders of the musculoskeletal system. Through a combination of didactic instruction and supervised clinical experience, students acquire the clinical skills of history taking and physical examination of the musculoskeletal system. Diagnosis and orthopaedic management of bone and soft tissue trauma, skeletal development defects, tumor, spinal disorders, hand and foot disorders, and arthritis are primary objectives. Third-year students work in ambulatory clinics and in inpatient services during their core surgical clerkship. Fourth-year electives provide the opportunity for in-depth experience on rotations at the Reagan UCLA Medical Center and affiliated institutions and emphasize subspecialties such as joint replacement, sports medicine, orthopaedic oncology, metabolic bone disorders, hand and foot surgery, spinal surgery, and pediatric orthopaedics.

For more details on the Department of Orthopaedic Surgery and courses offered, contact the Education Office at 310-825-6557 or see the department website.

Orthopaedic Surgery faculty information is available from the department.

Orthopaedic Surgery

Lower-Division Courses

ORTHOPAEDIC SURGERY

David Geffen School of Medicine
76-143 Center for Health Sciences
Box 956902
Los Angeles, CA 90095-6902

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For more details on the Department of Orthopaedic Surgery and courses offered, contact the Education Office at 310-825-6557 or see the department website.

Orthopaedic Surgery faculty information is available from the department.

Orthopaedic Surgery

Lower-Division Courses
**Pathology and Laboratory Medicine**

David Geffen School of Medicine

1P-171 Center for Health Sciences
Box 951732
Los Angeles, CA 90095-1732

Pathology and Laboratory Medicine
310-825-8119
E-mail contact
Sarah M. Dry, MD, Chair

**Overview**

Pathology is the branch of medicine concerned with the causes and development of disease. Coursework is designed so that students gain an in-depth knowledge of cell and molecular biology, genetics, and disease mechanisms. Didactic instruction is complemented by participation in seminars and training in the design and execution of original laboratory research. As a result, graduates obtain the expertise to translate and answer questions defined in the clinical area to the laboratory bench and vice versa. For more information, see the Pathology and Laboratory Medicine website.

Pathology and Laboratory Medicine faculty information is available from the department.

Pathology and Laboratory Medicine

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar; one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating easy paths of discovery at UCLA. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work); three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

110. Introduction to Cytogenetics. (4) Lecture, two hours; discussion, two hours. Limited to upper-division biology, genetics, and disease mechanisms. Students should have a basic understanding of genetics and be familiar with chromosome abnormalities. Preparation: knowledge of basic genetics.

118SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.


188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced requisites: course 188SB. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE 88B course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

199. Directed Research in Pathology. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Course requires one hour per week per unit. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses


222. Hematopoiesis: Basic Biology and Clinical Implications. (4) Lecture, three hours; discussion, one hour. Senior undergraduate students considered on case by case basis. Basic concepts and paradigms in hematopoietic development. Mammalian hematopoiesis and normal development, with focus on molecular regulation of cellular development and essential emphasis on conceptual and experimental aspects of knowledge in field. Discussion of important pathological states within hematopoietic system, as well as established and novel avenues for therapy. Topics include hematopoietic stem cells and niche, transcriptional and epigenetic regulation of hematopoiesis, B- and T-lymphocyte development, myeloid, erythroid, and platelet development, immune responses, myeloid and lymphoid neoplasia, and bone marrow transplantation/gene therapy. S/U or letter grading.

M229. Molecular Mechanisms of Host/Pathogen Interaction. (4) Same as Microbiology M229. Lecture, two hours; discussion, one hour. Preparation: Enforced requisites: Molecular Biology 254A through 254D. Molecular mechanisms of microbial interactions with eukaryotic host cells that result in disease or pathogen survival. Topics include bacterial and viral pathogenesis, bacterial, fungal, and parasitic diseases, basic mechanisms of microbial pathogenesis, and clinical relevance of microbial pathogenesis. Letter grading.

M237. Cellular and Molecular Basis of Disease. (4) Same as Molecular, Cell, and Developmental Biology M237. Lecture, two hours; laboratory, two hours. Preparation: one course each in molecular biology, cell biology, and microbiology. Discussions of key issues in disease mechanisms, with emphasis on understanding of the mechanisms, identification of important questions still remaining unanswered. Letter grading.

238. Histology and Pathology for Graduate Students. (2) Laboratory, two hours. Designed for UCLA ACCESS or Cellular and Molecular Pathology PhD students. Basic knowledge of normal tissue, histologic processes, and animal models as observed by light microscopy. Letter grading.

240. Transplantation Immunology from Benchside to Bedside. (4) Lecture, three hours; laboratory, one hour. Preparation: knowledge of host immune response. Limited to graduate students. New developments in organ transplantation, updates on basic science of immune mechanisms, integration of basic science principles into clinical practice. Letter grading.

M255. Mapping and Mining Human Genome. (3) (Same as Human Genetics M255). Lecture. Three hours. Basic molecular genetic and cytogenetic techniques of gene mapping. Selected regions of human genome are studied through analysis of gene families and clusters of genes that have remained linked from mouse to human. Discussion of localization of genetic diseases. S/U or letter grading.

256. Seminar: Viral Oncology. (2) Seminar, two hours. Advanced research seminar designed to consider current developments in field. Selection of current subjects and publications dealing with tumor viruses, oncogenesis, development, and cellular regulation. S/U grading.

M257. Introduction to Toxicology. (4) Same as Pharmacology M257. Requirements: Pharmacology M241. Biochemical and systemic toxicology, basic mechanisms of toxicology, and interaction of toxic agents with specific organ systems.

258. Pathologic Changes in Toxicology. (4) Same as Pharmacology M258. Designed to give students experience in learning normal histology of tissues which are major targets of toxicity or the range of pathologic changes that occur in these tissues (liver, bladder, lung, kidney, nervous system, and vascular system).

260. Immunopathology. (4) Lecture, two hours; discussion, one hour; laboratory, one hour. Preparation: Microbiology 261. Advanced information for graduate and advanced undergraduate students regarding immune system anatomy, lymphocytic development, acute and chronic inflammation, hypersensitivity, and autoimmunity. Letter grading.

262. Cytogenetics and Genomics. (3) Lecture, three hours. Comprehensive guide so students gain sufficient knowledge in core areas to perform state-of-art cytogenetic and genomic principles and techniques and their utility in clinical and research applications. Focus on relationship between various chromosomal and genetic abnormalities in human as identified by basic and advanced technologies such as fluorescence in situ hybridization (FISH), chromosomal microarray analysis (CMA), and next-generation sequencing (NGS). All aspects of molecular cytogenetics and advanced technologies through didactic teaching sessions, journal clubs, and interactive discussions. S/U or letter grading.

270. Basic and Clinical Aspects of Developmental Hematology. (4) Lecture, two hours. Graduate- and postgraduate-level course that covers broad range of topics in both basic and clinical aspects of developmental hematology. Pediatric hematologic disorders provide important paradigms in human and animal hemopoietic systems. Subjects include hematopoiesis, basic stem cell biology, angiogenesis, alternative models to study developmental hematology (zebrafish, Drosophila), basic mechanisms of normal and abnormal red blood cells, platelets, and white cells, leukemogenesis and novel therapeutics to treat leukemia, basic and clinical stem cell transplantation, state-of-the-art methods in developing cell and tissue engineering, and design of clinical trials, and biomedical modeling and statistics in developmental hematologic pathology. Letter grading.

M274. Molecular Cell Biology and Regenerative Medicine. (4) Same as Molecular, Cell, and Developmental Biology M274. Lecture, two hours; discussion, two hours. Designed for graduate students. Presentation of current knowledge of embryonic and adult stem cells and factors that regulate their growth and development. Major emphasis on how advances in cell and...
molecular biology and tissue engineering can be applied to use of stem cells in regenerative medicine. Bioethical and legal issues related to stem cell research, S/U or letter grading.

289. Clinical Aspects and Molecular Biology of Bone Marrow Failure Syndromes. (4) Lecture, two hours. Limited to graduate students. Coverage of broad range of topics on both clinical aspects and molecular pathogenesis of bone marrow failure syndromes. Studies provide important paradigms to understand fundamental mechanisms of human disease in addition to normal and abnormal blood cell development. Topics include basic biology and clinical features of aplastic anemia, myelodysplastic syndromes, Diamond Blackfan anemia, Schwachman-Diamond Syndrome, Fanconi anemia, Dyskeratosis Congenita, Paroxysmal Nocturnal Hemoglobinuria, flow cytometry, and research approaches to study bone marrow failure syndromes. Journal club sessions include discussion of two journal articles per meeting—one clinical and one basic/translational. Students present at least one journal article and lead group discussion. S/U or letter grading.


296. Research Topics in Pathology. (1 to 2) Research group meeting, one to two hours. Limited to departmental graduate students. Advanced study and analysis of current topics in pathology. Discussion of current research and literature in research specialty of faculty member teaching course. May be repeated for credit. S/U grading.


375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

596. Directed Individual Study or Research. (4 to 12) Tutorial, to be arranged. Individual research with members of the staff or of other departments, the latter for purpose of supplementing programs available in department. S/U grading.


**Pediatrics**

**David Geffen School of Medicine**

22-412A Marion Davies Children's Center Box 951752
Los Angeles, CA 90095-1752

**Pediatrics**

310-825-5095

Sherin U. Devaskar, MD, Executive Chair
Peter G. Szilágyi, MD, MPH, Executive Vice Chair and Vice Chair, Research

**Overview**

For first year medical students, exposure to pediatrics starts with the early authentic experiences and the activities of the pediatric interest group.

For second-year medical students, the required four-week clinical clerkship in pediatrics is offered at seven sites: Cedars-Sinai, Harbor-UCLA, Kaiser Permanente Los Angeles, Olive View-UCLA, UCLA, and UCLA Santa Monica medical centers; and Miller and UCLA Mattel children’s hospitals.

In their third year, it is anticipated that many medical students participate in research projects in the department of pediatrics before starting their fourth year where they can further their pediatric knowledge and clinical experiences by choosing in-depth subspecialty electives and subinternships offered by department.

For more details on the Department of Pediatrics and courses offered, see the department website.

**PEDIATRICS**

**Lower-Division Courses**

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

**Upper-Division Courses**

188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.


188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced requisite: course 188SB. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE 88S course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

199. Directed Research in Pediatrics. (2 to 8) Tutorial, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper required. May be repeated for credit. Individual contract required. P/NP or letter grading.

**Graduate Course**


**PHILOSOPHY**

**College of Letters and Science**

321 Dodd Hall
Box 951451
Los Angeles, CA 90095-1451

**Philosophy**

310-825-4641

**Department e-mail**

Sherrilyn Roush, PhD, Chair

**Faculty Roster**

**Professors**

David L. Blank, PhD
C. Tyler Burge, PhD (Mr. and Mrs. C.N. Flint Professor of Philosophy)
Samuel J. Cumming, PhD
Mark D. Greenberg, JD, DPhil (Michael H. Schill Endowed Professor of Law)
Barbara Herman, MA, PhD (Gloria and Paul Griffin Professor of Philosophy)
Pamela Hieronymy, PhD
David B. Kaplan, PhD (Hans Reichenbach Professor of Scientific Philosophy)
Karen E. Khalifa, PhD
Gavin Lawrence, DPhil
Calvin G. Normore, PhD (Brian P. Copenhaver Professor)
Michael A. Rescorla, PhD
Sherrilyn Roush, PhD
Seana Shiffrin, JD, DPhil (Pete Kameron Professor of Law and Social Justice)
Sheldon R. Smith, PhD

**Professors Emeriti**

Robert Merrifew Adams, PhD
Joseph Almoq, DPhil
John P. Cariere, PhD
Brian P. Copenhaver, PhD (Steven F. and Christine L. Udvar-Hazy Professor Emeritus)
Donald A. Martin, BS

**Associate Professors**

Adam D. Crager, PhD
The Philosophy major has the following learning outcomes:

- Development of oral and written skills that display skill at argument and the ability to engage honestly with difficult and controversial topics

Entry to the Major

Transfer Students
Transfer applicants to the Philosophy major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one philosophy of mind or skepticism and rationality course, one ethical theory course, one symbolic logic course, and one additional philosophy course.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major
Required: Four lower-division courses, including Philosophy 7 or 21, 22, 31, and one other lower-division philosophy course.

The Major
Required: Thirteen upper-division (100 series) or graduate (200 series) philosophy courses (52 units), including Philosophy 100A, 100B, 100C. Seven of the 13 courses must be distributed among the groups into which the undergraduate and graduate courses are divided—history of philosophy (numbered 101–119, 201–219); logic, semantics and philosophy of science (120–139, 220–239); ethics and value theory (150–169, 240–259); and metaphysics and epistemology (170–187, 270–289). Students must take two courses in each of three of the groups and one course in the remaining group.

Honors Program
Students must satisfy the honors directed study requirement by taking Philosophy 198A and 198B in conjunction (usually, but not necessarily concurrently) with two different regular upper-division philosophy courses supervised by the instructors of those courses.

Policies

The Major
Contract courses (199) may be applied toward the major but not toward a group requirement. A maximum of 8 units of course 199 may be applied toward the major but not toward a group requirement. Courses 100A, 100B, 100C may not be applied toward any group requirement. No course used to satisfy the major or preparation requirements may be taken on a P/NP basis.

Honors Program
Admission
To be admitted to the honors program, students must have an overall grade-point average of 3.7.

Undergraduate Minor

Philosophy Minor

The benefits of an undergraduate education in philosophy are those Francis Bacon attributed to reading, conversation, and writing: reading gives us material for our own thought; conversation, facility at sharing and debating ideas; and writing, the ability to fix ideas with precision. A typical philosophy course involves reading: from the center and margins of the major world traditions, to modern thinkers framing today’s urgent issues. It also involves conversation, as philosophers like to test ideas out in company and learn from those who see things differently to them. The final test of a philosophical theory or argument is to submit it to the rigor of writing. Philosophical writing, in the ideal, is clear, exact, and free of the rhetoric that may be able to temporarily sway an opponent in the heat of conversation.

Admission
To enter the Philosophy minor, students must have an overall grade-point average of 2.0 or better.

The Minor

Required Lower-Division Courses (10 units): Philosophy 7 or 21, and 22 or 31.

Required Upper-Division Courses (24 units): Five courses, including at least one from each of three of the four groups into which the undergraduate and graduate courses are divided—history of philosophy (numbered 101–119, 201–219); logic, semantics and philosophy of science (120–139, 220–239); ethics and value theory (150–169, 240–259); and metaphysics and epistemology (170–187, 270–289); one additional upper- or lower-division philosophy course.
Policies
Philosophy 100A, 100B, and 100C apply toward Group I. A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor. Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Major
Philosophy MA, CPhil, PhD
The aim of the graduate program is to produce philosophers of high quality. A graduate degree in philosophy is the usual path to becoming a professional academic philosopher, but the skills attained in the study and practice of philosophy are highly transferable and sought after by enlightened employers across the globe.

Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Concurrent Degree Program
Concurrent degree programs allow students to reduce the number of courses required for two degrees. Since some courses may apply to both degrees:

- Philosophy PhD/Justus Doctor

Philosophy
Lower-Division Courses
1. Beginnings of Western Philosophy. (5) Lecture, three hours; discussion, one hour. Historical introduction to Western philosophy based on classical texts dealing with philosophy in Greece and studied in chronological order: properties of rational argument, existence of God, problem of knowledge, nature of causality, relation between mind and body, possibility of justice, and others. P/NP or letter grading.

2. Introduction to Philosophy. (5) Lecture, four hours; discussion, one hour. Introductory study of topics such as nature and grounds of religious belief, relation between religion and ethics, nature and existence of God, problem of evil, and what can be learned from religious experience. P/NP or letter grading.

3. Historical Introduction to Philosophy. (5) Lecture, three hours; discussion, two hours. Historical introduction to Western philosophy based on classical texts dealing with philosophy in Greece and studied in chronological order: properties of rational argument, existence of God, problem of knowledge, nature of causality, relation between mind and body, possibility of justice, and others. P/NP or letter grading.

4. Philosophical Analysis of Contemporary Moral Issues. (5) Lecture, three hours; discussion, one hour. Critical study of principles and arguments advanced in discussion of current moral issues. Possible topics include revolutionary violence, rules of warfare, sexual morality, right of privacy, punishment, nuclear warfare and deterrence, abortion and mercy killing, experimentation with human subjects, rights of women. P/NP or letter grading.

5. Philosophy in Literature. (5) Lecture, three hours; discussion, one hour. Philosophical inquiry into such themes as freedom, responsibility, guilt, love, self-knowledge and self-deception, death, and meaning of life through examination of great literary works in Western tradition. P/NP or letter grading.

6. Introduction to Political Philosophy. (5) Lecture, three hours; discussion, one hour. Study of some classical or contemporary political philosophers. Questions that may be discussed include What is justice? Why obey the law? What form of government is best? How much religious belief should be allowed in society? P/NP or letter grading.

7. Introduction to Philosophy of Mind. (5) Lecture, three hours; discussion, one hour. Introductory study of philosophical issues about nature of the mind and its relation to the body, including matters of functionality, behaviorism, determinism and free will, nature of psychological knowledge. P/NP or letter grading.

8. Introduction to Philosophy of Science. (5) Lecture, three hours; discussion, one hour. Nature of arguments: how to analyze them and assess soundness of reasoning they represent. Common fallacies that often occur in argumentation discussed in light of which counts as good deductive or inductive inference. Other topics include use of language in argumentation to arouse emotions as contrasted with conveying thoughts, logic of scientific experiments and hypothesis-testing in general, and some general ideas about probability and its application in making normative decisions (e.g., betting). P/NP or letter grading.

9. Principles of Critical Reasoning. (5) Lecture, four hours; discussion, one hour. Introduction to study of topics such as reasoning about causes, properties of reasoning, and the role of inductive or deductive reasoning in our thought. Other topics include use of language in argumentation to arouse emotions as contrasted with conveying thoughts, logic of scientific experiments and hypothesis-testing in general, and some general ideas about probability and its application in making normative decisions (e.g., betting). P/NP or letter grading.

10. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

11. Skepticism and Rationality. (5) Lecture, four hours; discussion, one hour. Can we know anything with certainty? How can we justify any of our beliefs? Introduction to study of these and related questions through works of some of the greatest philosophers of modern period, such as Descartes, Hume, Leibniz, or Berkeley. P/NP or letter grading.

12. Introduction to Ethical Theory. (5) Lecture, three hours; discussion, one hour. Not open for credit to students with credit for course 22. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. Letter grading.

13. Logic, First Course. (5) Lecture, four hours; discussion, one hour. Recommended for students who plan to pursue more advanced studies in logic. Elements of symbolic logic, sentential and quantificational forms of reasoning and structure of language. P/NP or letter grading.

19. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

21. Skepticism and Rationality. (5) Lecture, four hours; discussion, one hour. Can we know anything with certainty? How can we justify any of our beliefs? Introduction to study of these and related questions through works of some of the greatest philosophers of modern period, such as Descartes, Hume, Leibniz, or Berkeley. P/NP or letter grading.

22. Introduction to Ethical Theory. (5) Lecture, three hours; discussion, one hour. Not open for credit to students with credit for course 22. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. Letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses
100A. History of Greek Philosophy. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Survey of origins of Greek metaphysics from pre-Socratic through Plato and Aristotle. P/NP or letter grading.

100B. Medieval and Early Modern Philosophy. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Strongly recommended requisite: course 100A. Survey of development and transformation of Greek metaphysics and epistemology within context of philosophical theology, and transition from medieval to early modern period. Special emphasis on Augustine, Anselm, Aquinas, and Descartes. P/NP or letter grading.

100C. History of Modern Philosophy, 1650 to 1800. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Strongly recommended requisite: course 100B. Survey of development and transformation of Greek metaphysics and epistemology within context of philosophical theology, and transition from medieval to early modern period. Special emphasis on Augustine, Anselm, Aquinas, and Descartes. P/NP or letter grading.

100D. History of Modern Philosophy, 1800 to 1900. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Strongly recommended requisite: course 100B. Survey of development and transformation of Greek metaphysics and epistemology within context of philosophical theology, and transition from medieval to early modern period. Special emphasis on Augustine, Anselm, Aquinas, and Descartes. P/NP or letter grading.

100E. History of Modern Philosophy, 1900 to 1980. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Strongly recommended requisite: course 100B. Survey of development and transformation of Greek metaphysics and epistemology within context of philosophical theology, and transition from medieval to early modern period. Special emphasis on Augustine, Anselm, Aquinas, and Descartes. P/NP or letter grading.
physics and theory of knowledge from 1650 to 1800, including Locke and/or Berkeley, Malebranche and/or Leibniz, and culminating in Hume and Kant. Topics may include: history of these (and perhaps other) philosophers of the period on mind and body, causality, existence of God, skepticism, empiricism, limits of human knowledge, and philosophical foundations of modern science. P/NP or letter grading.

Group I: History of Philosophy

M101A. Plato—Earlier Dialogues. (4) (Same as Classics M146A.) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Study of selected topics in early and middle dialogues of Plato. P/NP or letter grading.

M101B. Plato—Later Dialogues. (4) (Same as Classics M146B.) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Study of selected topics in middle and later dialogues of Plato. P/NP or letter grading.

M102. Aristotle. (4) (Same as Classics M147.) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Study of selected works of Aristotle. P/NP or letter grading.

M103A. Ancient Greek and Roman Philosophy. (4) (Same as Classics M145A.) Lecture, three hours. Study of some major Greek and Roman philosophical texts, including the works of Empedocles, Plato, Aristotle, and Hellenistic philosophers, with emphasis on historical and cultural setting of texts, their literary form, interrelations, and contribution to discussion of basic philosophical issues. P/NP or letter grading.

M103B. Later Ancient Greek Philosophy. (4) (Same as Classics M145B.) Lecture, three hours; preparation: one course from 100A, 101B, 102, or 103A. Study of some major texts in Greek philosophy of Hellenistic and Roman periods. Readings vary and include works by Stoics, skeptics, philosophers of science, Neoplatonists, etc. P/NP or letter grading.

104. Topics in Islamic Philosophy. (4) Lecture, three to four hours, discussion, one hour (when scheduled). Preparation: one philosophy course. Development of philosophy within orbit of Islam from beginning of interaction of Islam with ancient philosophy to period of hegemony of Ottoman Empire. Figures examined may vary but usually include many of the kindi, Ibn Sina (Avicenna), al-Ghazali, ben Maimon (Maimonides), Ibn Rushd (Averroes), and Suhrawardi. Topics include central issues in Islamic philosophy and epistemology. May be repeated for credit with consent of instructor. P/NP or letter grading.

106. Later Medieval Philosophy. (4) Preparation: one philosophy course. Metaphysics, theory of knowledge, and language. Preparation: one course in philosophy, including philosophy of science, epistemology, and language. May be repeated for credit with consent of instructor. P/NP or letter grading.

107. Topics in Medieval Philosophy. (4) Lecture, four hours; discussion, one hour. Preparation: one philosophy course. Recommended requisite: course 105 or 106. Study of philosophy and theology of one medieval philosopher such as Augustine, Anselm, Abelard, Aquinas, Scotus, or Ockham, or study of one single area such as logic or theory of knowledge in several medieval philosophers. Topic announced each term. May be repeated for credit with consent of instructor. P/NP or letter grading.

110. Hobbes. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Hobbes' political philosophy, especially Leviathan, with attention to its relation to contemporary political philosophy. May be concurrently scheduled with course C208. P/NP or letter grading.

110. Descartes. (4) Lecture, four hours; discussion, one hour. Requisite: course 21 or two philosophy courses. Study of two works of Descartes, with discussion of issues such as problem of skepticism, foundations of knowledge, existence of God, relation between mind and body, and connection between science and metaphysics. May be concurrently scheduled with course C209. P/NP or letter grading.

111. Spinoza. (4) Lecture, three hours; discussion, one hour (when scheduled). Preparation: one philosophy course. Selected topics in philosophy of Spinoza. May be concurrently scheduled with course C210. Limited to 30 students when concurrently scheduled. P/NP or letter grading.

111. Leibniz. (4) Lecture, three hours; discussion, one hour. Requisite: course 21. Study of philosophy of Leibniz. May be concurrently scheduled with course C211, in which case there is weekly discussion meeting, plus fewer readings and shorter papers for undergraduates. Limited to 30 students when concurrently scheduled with course C212. P/NP or letter grading.

112. Locke and Berkeley. (4) Lecture, four hours. Preparation: one philosophy course. Study of philosophies of Locke and Berkeley, with emphasis in some cases on one or the other. Limited to 30 students when concurrently scheduled with course C212. P/NP or letter grading.

114. Hume. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Selected topics from metaphysical, epistemological, and ethical writings of Hume. Limited to 40 students when concurrently scheduled with course C214. P/NP or letter grading.

115. Kant. (4) Lecture, three hours; discussion, one hour. Requisite: course 21 or 22. Study of Kant's views on related topics in theory of knowledge, ethics, and politics. May be repeated for credit with consent of instructor. Concurrently scheduled with course C215. P/NP or letter grading.


117. Late 19th- and Early 20th-Century Philosophy. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Selected topics in work of one or more of following philosophers: Bolzano, Frege, Husserl, Meinong, G. Moore, early Russell, and Wittgenstein. May be repeated for credit with consent of instructor.

118. Theories of Perception and Analysis. (4) Preparation: one philosophy course. Philosophical study of some major works of Kierkegaard, with emphasis on interpretation of the texts. P/NP or letter grading.

118B. Kierkegaard and Philosophy of Religion. (4) (Same as Religion M118B.) Lecture, three to four hours; discussion, one hour (when scheduled). Preparation: one philosophy course. Study of selected works of Kierkegaard on philosophy of religion, with emphasis on interpretation of texts. P/NP or letter grading.

119. Topics in History of Philosophy. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Philosophical issues arising from psychological theories. Nature of perception and issues about perceptual psychology and development of important types of representation (e.g., of body, cause, agency) in early childhood. Relevance of contemporary cognitive psychology to account of mind and meaning; relations between semiological theory and learning theory; psychological aspects of theory of syntax. May be repeated for credit with consent of instructor. May be concurrently scheduled with course C228A. P/NP or letter grading.

120. Philosophy of Psychology. (4) Lecture, three to four hours; discussion, one hour (when scheduled). Preparation: one or more philosophy courses. Selected philosophical issues arising from psychological theories. Nature of perception and issues about perceptual psychology and development of important types of representation (e.g., of body, cause, agency) early in childhood. Relevance of contemporary cognitive psychology to account of mind and meaning; relations between semiological theory and learning theory; psychological aspects of theory of syntax. May be repeated for credit with consent of instructor. May be concurrently scheduled with course C228B. P/NP or letter grading.

121. Topics in Philosophy of Science. (4) Lecture, three hours; discussion, one hour (when scheduled). Preparation: one philosophy course. Philosophical investigation into one aspect of scientific practice (e.g., theory formation, explanation, prediction). May be repeated for credit with consent of instructor. P/NP or letter grading.

122. Philosophy of Science: Historical. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Historical introduction to philosophy of science. Several general topics discussed in context of actual scientific history from Galileo to natural sciences. May be repeated for credit with consent of instructor.

123. Philosophy of Science: Contemporary. (4) Lecture, three hours; discussion, one hour. Requisite: course 31 or 124. Introduction to contemporary philosophy of science, focusing on problems of central importance. May be repeated for credit with consent of instructor.

126. Philosophy of Science: Social Sciences. (4) Lecture, three hours; discussion, one hour. Preparation: two philosophy courses. Discussion of topics in philosophy of social sciences (e.g., methods of social sciences in relation to physical sciences, value-bias in social inquiry, concept formation, theory construction, explanation and prediction, nature of social laws). P/NP or letter grading.

127A. Philosophy of Language. (4) Lecture, four hours; discussion, one hour. Enforced requisite: course 31. Syntax, semantics, pragmatics. Semantical concepts of truth, sense and denotation, synonymy and analyticity, modalities and tenses, indirect discourse, indexical terms, semantical paradoxes. May be repeated for credit with consent of instructor. Concurrently scheduled with course C228A. P/NP or letter grading.

127B. Philosophy of Language. (4) Lecture, four hours; discussion, one hour. Requisite: course 31. Course C127A is not requisite to C127B. Selected topics similar to those considered in course C127A, but with focus on contemporary figures. May be repeated for credit with consent of instructor. Concurrently scheduled with course C228B. P/NP or letter grading.

128. Topics in Philosophy of Mathematics. (4) Lecture, four hours. Requisites: courses 31, 132, and preferably one additional logic course. Introduction to philosophy of mathematics. Survey of philosophy of mathematics from Kant through Frege and Russell to Quine, and development of three main schools of logicism, formalism, and intuitionism in their historical context. Study of original texts of philosophy such as Kant, Frege, and Russell, and how their philosophy interacted with contemporary developments in mathematics and logic. May be repeated for credit with consent of instructor. May be concurrently scheduled with course C323. P/NP or letter grading.

129. Philosophy of Psychology. (4) Lecture, three to four hours; discussion, one hour (when scheduled). Preparation: one or more philosophy courses. Selected philosophical issues arising from psychological theories. Nature of perception and issues about perceptual psychology and development of important types of representation (e.g., of body, cause, agency) in early childhood. Relevance of contemporary cognitive psychology to account of mind and meaning; relations between semiological theory and learning theory; psychological aspects of theory of syntax. May be repeated for credit with consent of instructor. May be concurrently scheduled with course C328. P/NP or letter grading.

130. Philosophy of Space and Time. (4) Lecture, three hours; discussion, one hour. Preparation: two philosophy courses or one philosophy course and one philosophy course. Selected philosophical problems concerning nature of space and time. Philosophical implications of space-time theories, such as those of Newton and Einstein. Topics may include nature of geometry, foundationalism, relativist views of space and time, philosophical impact of relativistic theory.

131. Science and Metaphysics. (4) Lecture, three to four hours; discussion, one hour (when scheduled). Preparation: one or two philosophy courses. Recommended some background in basic calculus and physics. Intensive study of one or two metaphysical topics on which results of modern science have been thought to bear. Topics may include nature of causation, reality and direction of time, time-travel, backwards causation, realism, determinism, absolute view of space, etc. May be repeated for credit with consent of instructor. P/NP or letter grading.

133. Topics in Logic and Semantics. (4) Lecture; four hours; discussion, one hour. Enforced requisite: course 31. Possible topics include formal theories definitions, alternative theories of descriptions, many-valued logics, deviant logics. May be repeated for credit with consent of instructor. P/NP or letter grading.

133B. Probability and Inductive Logic. (4) Lecture; three hours; discussion, one hour (when scheduled). Requisite: course 31, or background in logic, computer science, statistics, or mathematics. Topics may include interpretations of probability, Bayesian and non-Bayesian confirmation theory, paradoxes of confirmation, coherence, and conditioning. May be concurrently scheduled with course C225. P/NP or letter grading.

133C. Topics in Probability and Inductive Logic. (4) Lecture; three hours; discussion, one hour (when scheduled). Requisite: course 31, or background in logic, computer science, statistics, or mathematics. Topics may include interpretations of probability, Bayesian and non-Bayesian confirmation theory, paradoxes of confirmation, coherence, and conditioning. May be concurrently scheduled with course C225. P/NP or letter grading.

M134. Introduction to Set Theory. (4) (Same as Mathematics M114S.) Lecture; three hours; discussion, one hour. Enforced requisite: course 135 or Mathematics 110A or 131A. Axiomatic set theory as framework for mathematical concepts; relations and functions, numbers, cardinality, axiom of choice, transfinite numbers. P/NP or letter grading.

135. Introduction to Metalogic. (4) Lecture; four hours; discussion, one hour. Enforced requisite: course 31. Strongly recommended requisite: course 132 (or Mathematics 33A or 33B). Metah theory sentential logic and first-order logic. Introduction to formal language, formal deductive systems, and models. Compactness and completeness theorems that concern comp lexity of notion of logical consequences. P/NP or letter grading.

136. Modal Logic. (4) Lecture; four hours. Requisites: courses 31 (enforced), 135. Introduction to model theory of modal logic (family of systems that includes logics of necessity, possibility, tense, temporal, epistemic logics, and logics of actions/programs). Topics include invariance results, definability theory, completeness theory, game-theoretic methods, and related uses of combinatorial game theory (classical) first- and second-order logic. P/NP or letter grading.

137. Philosophy of Biology. (4) Lecture; three to four hours; discussion, one hour (when scheduled). Preparation: one philosophy course. Intensive study of one or two current topics in philosophy of biology, which may include structure of evolutionary theory, fitness, taxonomy, reductionism, concept of biological species, and biological explanation. P/NP or letter grading.

138. Philosophy of Visual Representation. (4) Lecture; four hours. Preparation: one philosophy course (in philosophy of mind or language recommended). Investigation of philosophical questions relating to visual representation. Possible topics include visual perception, mental image, image versus language, semantics, pictorial representation, comics and film, diagrams, and data visualization. P/NP or letter grading.

Group III: Ethics and Value Theory

150. Society and Morals. (4) Lecture; three hours; discussion, one hour. Requisite: course 22. Critical study of principles and arguments advanced in discussion of current moral and social issues. Topics similar to those in course 4, but familiarity with some basic philosophical concepts and methods presupposed. May be repeated for credit with consent of instructor.

151A-C151B-151C. History of Ethics. (4–4–4) Lecture; three hours; discussion, one hour. Preparation: two philosophy courses. Each course may be taken independently or in combination. 151A: Selected Classics in Ancient Ethical Theories; Plato, Aristotle. C151B. Modern. Intensive study of Kant's ethical theory. May be repeated for credit with consent of instructor. May be concurrently scheduled with course C245. 151C: Selected Classics of Medieval Ethics.

152A. Topics in Moral Philosophy. (4) Lecture; three to four hours; discussion, one hour (when scheduled). Study of philosophical issues raised by topic of evil actions and/or evil people. Issues may include nature and scope of evil, theodicy, responsibility for evil and evil of free will, causes and motivations for evil actions, and variant responses to evil such as forgiveness and punishment. P/NP or letter grading.

152B. Topics in Moral Philosophy: Evil. (4) (Same as Religion M179.) Lecture; three to four hours; discussion, one hour (when scheduled). Preparation: one philosophy course. Course 152A is not requisite to 152B. Exploration of philosophical issues raised by topic of evil actions and/or evil people. Issues may include nature and scope of evil, theodicy, responsibility for evil and evil of free will, causes and motivations for evil actions, and variant responses to evil such as forgiveness and punishment. P/NP or letter grading.

153A. Topics in Ethical Theory: Normative Ethics. (4) Lecture; three hours; discussion, one hour. Requisite: course 22. Study of selected topics in normative ethical theory. Topics may include human rights, virtues and vices, principles of culpability and praiseworthiness (criteria of right action). May be repeated for credit with consent of instructor. P/NP or letter grading.

153B. Topics in Ethical Theory: Metaethics. (4) Lecture; three hours; discussion, one hour. Requisite: course 22. Study and analysis of basic concepts, selected problems, and contemporary issues in metaethics. Topics may include analysis of moral language, justification of moral beliefs, moral realism, skepticism, tree will, moral motivation, etc. May be repeated for credit with consent of instructor. May be concurrently scheduled with course C225B. P/NP or letter grading.

154. Topics in Value Theory: Rationality and Action. (4) Lecture; three hours; discussion, one hour. Requisite: course 6 or 7 or 22. Selected topics concerning normative issues in practical rationality or philosophy of action. Topics may include: logical paradoxes, peer opposition, additiveness, nature of reasons for action, rationality of morality and prudence, weakness of will, freedom of will, and decision theory. May be repeated for credit with consent of instructor. May be concurrently scheduled with course C224B. P/NP or letter grading.

154B. Topics in Value Theory: Moral Responsibility and Free Will. (4) (Formerly numbered 154B) Lecture; three hours; discussion, one hour. Preparation: one philosophy course. Examination of philosophical problems surrounding moral responsibility and free will, using contemporary or classical readings in attempt to better understand kind of freedom required for moral agents. May be repeated for credit. May be concurrently scheduled with course C224B. P/NP or letter grading.

155A. Medical Ethics. (4) Lecture; three to four hours; discussion, one hour (when scheduled). Course 155A is not requisite to 155B. Examination of philosophical issues raised by problems of medical ethics, such as abortion, euthanasia, and medical experimentation. May be repeated for credit with consent of instructor. P/NP or letter grading.

155B. Topics in Medical Ethics. (4) Lecture; three to four hours; discussion, one hour (when scheduled). Course 155A is not requisite to 155B. Intensive investigation of one or two topics or philosophical issues in medical ethics, such as paternalism, truth-telling, physician-patient relationship, distributive justice, autonomy and medical decision making, and research ethics. Topics announced each term. May be repeated for credit with consent of instructor. P/NP or letter grading.

156. Topics in Political Philosophy. (4) Lecture; three hours; discussion, one hour. Analysis of some basic concepts in political theory. May be repeated for credit with exception of instructor. P/NP or letter grading.

157A-157B. History of Political Philosophy. (4–4) Lecture; three hours; discussion, one hour. Preparation: two philosophy courses. May be repeated with consent of instructor. 157A: Reading and discussion of classic works in earlier political theory, especially those by Hobbes, Locke, Hume, and Rousseau. 157B: Reading and discussion of classic works in later political theory, especially those by Kant, Hegel, and Marx.

161. Topics in Aesthetic Theory. (4) Lecture; three hours; discussion, one hour. Preparation: one philosophy course. Philosophical theories about nature and importance of art and art criticism, aesthetic experience, and aesthetic values. May be repeated for credit with consent of instructor.

166. Philosophy of Law. (4) Lecture; three hours; discussion, one hour. Preparation: one philosophy course. Examination, through study of recent philosophical writings, of such topics as nature of law, relationship of law and morals, legal reasoning, punishment, and obligation to obey law. May be repeated for credit. P/NP or letter grading.

167. Feminist Issues in Value Theory. (4) Lecture; three hours; discussion, one hour (when scheduled). Preparation: one philosophy course. Study of ethical dimensions of feminist issues. Issues discussed may include contemporary social issues, different models of gender identity and gender equality; gender discrimination, subordination, hierarchy, and resistance; gender equality in family and workplace; sexual harassment and violence; reproductive freedom and just and unjust institutional arrangements as they affect gender. P/NP or letter grading.

168. Philosophy of Race. (4) Lecture; three hours; discussion, one hour (when scheduled). Preparation: one philosophy course. Exploration of theories of race and racism and intersection of race with other social structures. Topics may include metaphysics of race, social construction, racial identity, racial injustices, and implications of racial solidarity, and relationships between race and ethnicity, race and class, and race and gender. P/NP or letter grading.

Group IV: Metaphysics and Epistemology

170. Philosophy of Mind. (4) Lecture; three hours; discussion, one hour. Preparation: two relevant philosophy courses. Analysis of various problems concerning nature of mind and mental phenomena, such as relation between mental and physical kinds of knowledge, and relation of knowledge of other minds. May be repeated once for credit with consent of instructor.

172. Philosophy of Language and Communication. (4) Lecture; three hours; discussion, one hour. Theories of meaning and communication; how words refer to things; limits of meaningfulness; analysis of speech acts; relation of everyday language to scientific discoveries. P/NP or letter grading.

173. Philosophy of Medicine. (4) Lecture; three to four hours; discussion, one hour (when scheduled). Focus on questions like what is health, what is well-being, what is mental disorder, and what is disability. Consideration of naturalistic, normative, and social constructivist types of answers, and error theories. Consideration of roles that fact, value, statistical norms, normative variation, normal function, and harm might have in these concepts. Study of consequences of different accounts of these concepts for people with minority bodies, minds, and sexualities, and for decisions about cure, enhancement, and reproduction. P/NP or letter grading.

174. Topics in Theory of Knowledge. (4) Lecture; three to four hours; discussion, one hour (when scheduled). Preparation: one philosophy course. Intensive investigation of one or two selected topics or works in theory of knowledge, such as a particular knowledge problem of induction, memory, knowledge as justified true belief. Topics announced each term. May be repeated for credit with consent of instructor. P/NP or letter grading.
**Philosophy**

M175. Topics in Philosophy of Religion. (4) (Same as Religion M175.) Lecture; three hours; discussion, one hour. Prerequisite: course 21 or 22. Intensive investigation of one or two topics or works in philosophy of religion, such as attributes of God, arguments for or against existence of God, or relation between religion and ethics. Topics announced each term. May be repeated for credit with consent of instructor.

176. Metaphysics. (4) Lecture, four hours. Requisite: courses 31, 132. Highly recommended: course 136. Second course in two-term sequence (also see course 136). Metaphysical foundations of modal logic, essential and actualistic basis of modal theory of modal logic. What are possible worlds? What is accessibility relation? Is modal logic one logic or one theory? Is its focus logical or metaphysical necessity? Are both modalities in play? How many modalities are involved (quantified) modal logic? What is its connection to doctrines of (1) Haecceitism and (2) Aristo- telian Essentialism? P/N or P/NP or letter grading.

177A. Existentialism. (4) Lecture; three hours; discussion, one hour. Preparation: one philosophy course. Analysis of methods, problems, and views of some of the following: Kierkegaard, Nietzsche, Heidegger, Jaspers, Sartre, Marcel, and Camus. Possible topics include metaphysics, epistemology, nature of reality, freedom, problem of self, other people, ethics, existential psychoanalysis. May be repeated for credit with consent of instructor. P/N or letter grading.

177B. Historical Phenomenology. (4) Preparation: one philosophy course. Study of central philosophical texts of one of the following: Nietzsche, Heidegger, Jaspers, Buber, Sartre, or Camus. Emphasis on explanation and interpretation of the texts. May be repeated for credit with consent of instructor.

178. Phenomenology. (4) Lecture; three hours; discussion, one hour. Preparation: two philosophy courses. Introduction to phenomenological method of approaching philosophical problems via works of some of the following: Brentano, Husserl, Heidegger, Scheler, Sartre, Merleau-Ponty, Ricoeur. Topics include ontology, epistemology, and particularly philosophy of mind.

179. Asian Philosophy. (4) Lecture; three hours; discussion, one hour. Examination of central concepts and arguments in Buddhist or Chinese philosophy. Appropriate parallels to social concepts in Western tradition. May be repeated for credit with consent of department. P/N or letter grading.

180. Philosophy of Action. (4) Lecture; three to four hours; discussion, one hour (when scheduled). Preparation: two philosophy courses. Study of various theories of action employed in understanding human action. Topics may include rational choice, desire, intention, weakness of will, and self-deception. May be repeated for credit with consent of instructor. P/N or letter grading.


182. Elements of Metaphysics. (4) Lecture; three hours; discussion, one hour. Requisite: course 21. Study of basic metaphysical questions: nature of physical world, of minds, and of universals; and answers provided by (e.g., phenomenism, materialism, dualism). P/N or letter grading.

183. Theory of Knowledge. (4) Lecture; three hours; discussion, one hour. Requisite: course 21. Problem-oriented study of contemporary classics of epistemology on topics such as skepticism, justification, foundationalism, epistemic intuitions, tracking, closure, reliabilism, internalism, and externalism, among others. May be repeated for credit with consent of instructor. P/N or letter grading.

184. Topics in Metaphysics. (4) Lecture; three hours; discussion, one hour. Requisite: course 21. Intensive investigation of one or two topics or works in metaphysics, such as: identity, nature of dispositions, possibility and necessity, universals and particulars, causality. Topics announced each term. May be repeated for credit with consent of instructor. P/N or letter grading.

185. Major Philosophers of 20th Century. (4) Lecture, three hours; discussion, one hour. Preparation: two philosophy courses. Study of writings of one or more philosophers of the 20th century (e.g., Moore, Wittgenstein, Carnap, Quine). May be repeated for credit with consent of instructor. P/N or letter grading.

187. Topics in Feminist Philosophy: Metaphysics and Epistemology. (4) Preparation: courses 131, 132, 110LC, 110CC. Lecture; three hours; discussion, one hour (when scheduled). Requisite for Gender Studies majors: Gender Studies 10; for other students: one philosophy course. Examination in depth of different theoretical positions on gender and women as they have been applied to study of philosophy. Emphasis on theoretical contributions made by new scholarship on women in philosophy. May be repeated for credit with consent of instructor. P/N or letter grading.

Special Studies

188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors College 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of original research project. May be repeated for credit with consent of instructor. P/N or letter grading.

188SB. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: course 188SA. Individual study in regularly scheduled meetings with faculty mentor to identify course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced corequisite: course 188SB. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE 888 course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, one hour. Limited to 20 students. Designed as adjunct to upper-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be repeated for credit with consent of students. May not be applied toward departmental honors. May be repeated for credit. Honors content noted on transcript. P/N or letter grading.

189CH. Honors Contracts. (1) Tutorial, one hour. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May not be applied toward departmental honors. May be repeated for credit with consent of instructor. P/N or letter grading.

190. Honors in Philosophy. (2 to 4) Seminar, four hours. Limited to junior/senior philosophy honors students. Preparation: one philosophy course. Each course to be taken in conjunction with one upper-division philosophy lecture course, either concurrently or in subsequent term, under direct supervision of lecture course instructor. Advanced work related to lecture course, further reading, and preparation of 12- to 15-page paper representing original research. Courses 198A and 198B must be taken in conjunction with two different lecture courses, and both must satisfy departmental honors requirement. May be repeated for credit. Individual contract required. Letter grading.

190C. Honors Research in Philosophy. (4) Tutorial, four hours. Limited to junior/senior philosophy honors program students. Development and completion of an original research project under direct supervision of faculty member. May be repeated for credit. Individual contract required. Letter grading.

199. Directed Research in Philosophy. (2 to 4) Tutorial, to be arranged. Limited to individual research under guidance of faculty mentor. Culuminating paper or research project required. Up to 8 units may be applied toward degree requirements, but no course may be substituted for course in one of four groups on basis of similarity of subject matter. May be repeated for credit. Individual contract required. P/N or letter grading.

Graduate Courses

200A-200B-200C. Seminar for First-Year Graduate Students. (1–4) Seminar, three hours. Limited to and required of all first-year graduate philosophy students. Selected topics in metaphysics and epistemology, history of philosophy, and ethics. Letter (200A, 200B) or S/U or letter (200C) grading.

Group I: History of Philosophy


203. Seminar: History of Ancient Philosophy. (4) Seminar, four hours. Selected problems and philosophers. May be repeated for credit with consent of instructor. S/U or letter grading.

206. Topics in Medieval Philosophy. (4) Lecture, four hours. Study of philosophy and theology of one or several medieval philosophers such as Augustine, Anselm, Abelard, Aquinas, Scotus, Eckhart, or Ockham or study of single area such as logic or theory of knowledge in several medieval philosophers. Topics announced each term. May be repeated for credit with consent of instructor. S/U or letter grading.

207. Seminar: History of Medieval and Renaissance Philosophy. (4) Seminar, four hours. Selected problems and philosophers. May be repeated for credit with consent of instructor. S/U or letter grading.

212. Locke and Berkeley. (4) Lecture, four hours. Preparation: one philosophy course. Hobbes’ political philosophy, especially Leviathan, with attention to its relevance to contemporary political philosophy. May be repeated for credit with consent of instructor. S/U or letter grading.

219A-219B. Honors Research in Philosophy. (2–2) Tutorial, two hours. Limited to junior/senior philosophy honors students. Each course to be taken in conjunction with one upper-division philosophy lecture course, either concurrently or in subsequent term, under direct supervision of lecture course instructor. Advanced work related to lecture course, further reading, and preparation of 12- to 15-page paper representing original research. Courses 219A and 198B must be taken in conjunction with two different lecture courses, and both must satisfy departmental honors requirement. May be repeated for credit. Individual contract required. Letter grading.

220A-220B-220C. Seminar for First-Year Graduate Students. (4–4) Seminar, three hours. Limited to and required of all first-year graduate philosophy students. Selected topics in metaphysics and epistemology, history of philosophy, and ethics. Letter (200A, 200B) or S/U or letter (200C) grading.

C209. Descartes. (4) Lecture; four hours; discussion, one hour. Study of works of Descartes, with discussion of issues such as problem of skepticism, foundations of knowledge, existence of God, relation between mind and body, and connection between science and metaphysics. May be concurrently scheduled with course C101. S/U or letter grading.

C210. Spinoza. (4) Lecture; three hours; discussion, one hour (when scheduled). Selected topics in philosophies of Locke and Berkeley, with emphasis in some cases on one or the other. Limited to 30 students when concurrently scheduled with course C212. S/U or letter grading.

C211. Leibniz. (4) Lecture; three hours. Selected topics in philosophy of Leibniz. May be concurrently scheduled with course C111, in which case there is two-hour biweekly discussion meeting, plus additional readings and longer term paper for graduate students. S/U or letter grading.

C212. Locke and Berkeley. (4) Lecture, four hours. Preparation: one philosophy course. Study of philosophies of Locke and Berkeley, with emphasis in some cases on one or the other. Limited to 30 students when concurrently scheduled with course C212. S/U or letter grading.

C214. Hume. (4) Lecture; three hours; discussion, one hour. Selected topics in philosophy of Hume. May be repeated for credit with consent of instructor. May be concurrently scheduled with course C114. S/U or letter grading.
C215. Kant. (4) Lecture, three hours; discussion, one hour. Requisite: course 21 or 22. Study of Kant's views on related topics in theory of knowledge, ethics, and politics. May be repeated for credit with consent of instructor. Concurrently scheduled with course C115. S/U or letter grading.

216. 19th-Century Philosophy. (4) Seminar, four hours. Topics in 19th-century philosophy. May be repeated for credit with consent of instructor. S/U or letter grading.

C219. Topics in History of Philosophy. (4) Lecture, three hours; discussion, one hour. Study of selected philosophers or themes in history of philosophy from different periods (ancient, medieval, and early modern). May be repeated for credit with consent of instructor. Concurrently scheduled with course C119. S/U or letter grading.

220. Seminar: Topics in History of Philosophy. (4) Seminar, four hours. Topics in history of philosophy. May be repeated for credit with consent of instructor. S/U or letter grading.

Group II: Logic, Semantics, and Philosophy of Science

221A. Topics in Set Theory. (4) Lecture, three hours. Requisite: Mathematics M114S. Sets, relations, functions, partial and total orderings; well-orderings. Ordinal and cardinal numbers, cardinality, Cantor's theorem, and continuum hypothesis, inaccessible numbers. Formalization of set theory; Zermelo/Fraenkel; von Neumann/Goedel theory. May be repeated for credit with consent of instructor. S/U or letter grading.

221B. History of Set Theory. (4) Lecture, four hours. Development of concept of set and axiomatic set theory by examining selected writings of Frege, Cantor, Russell, Zermelo, Goedel, and several others. Origins and significance of certain key ideas, such as set theory as logic, axiomatic set theory as reaction to paradoxes, formal first-order axiomatic set theory as opposition to Cantor's set theory, type theory as reaction to hierarchy, ramification and predicativity, proper classes and sets as small classes, and particular Zermelo/Fraenkel axiomatic theory. Emphasis on actual expressed ideas and views of various influential authors. S/U or letter grading.


223. Topics in Philosophy of Mathematics. (4) Lecture, four hours. Introduction to philosophy of mathematics. Survey of philosophical problems of mathematicians from Kant to Hilbert. Study of content and development of three main schools of logicism, formalism, and intuitionism in their historical context. Study of original texts of philosophy such as Kant, Frege, and Russell, and how their philosophy interacted with contemporary developments in mathematics and logic. May be repeated for credit with consent of instructor. May be concurrently scheduled with course C128. S/U or letter grading.

224. Philosophy of Physics. (4) Seminar, three hours. Selected philosophical topics related to physical theory, depending on interests and background of participants, including space and time; observation in quantum mechanics; foundations of statistical mechanics. May be repeated for credit with consent of instructor. S/U or letter grading.

225. Probability and Inductive Logic. (4) Formerly numbered 225B. Lecture, three hours; discussion, one hour (when scheduled). Requisite: course 31, or background in logic, computer science, statistics, or mathematics. May include interpreters of probability, Bayesian and non-Bayesian confirmation theory, paradoxes of confirmation, coherence, and conditioning. May be concurrently scheduled with course C133B. S/U or letter grading.

226. Topics in Mathematical Logic. (4) Lecture, four hours. Content varies from term to term. May be repeated for credit with consent of instructor. S/U or letter grading.

227. Philosophy of Social Science. (4) Lecture, four hours. Examination of philosophical problems concerning concepts and methods used in social sciences. Topics may include relation between social research and social theory, the nature of the interpretation in social sciences, determinism and spontaneity in history, interpretation of cultures radically different from one's own. Students with primary interest in and advanced preparation in social sciences are encouraged to enroll. May be repeated for credit with consent of instructor. S/U or letter grading.

228A. Philosophy of Language. (4) Lecture, four hours; discussion, one hour. Enforced requisite: course C22B. Topics include concept of truth, sense and denotation, synonymy and analyticity, modalities and tenses, indirect discourse, indexical terms, semantical paradoxes. May be repeated for credit with consent of instructor. Concurrently scheduled with course C127A. S/U or letter grading.

228B. Philosophy of Language. (4) Lecture, four hours; discussion, one hour. Requisite: course 21. Recommended: course C22B. Selected topics similar to those considered in course C228A, but at more advanced and technical level. May be repeated for credit with consent of instructor. Concurrently scheduled with course C127B. S/U or letter grading.

228C. Philosophy of Language. (4) Lecture, four hours; discussion, one hour. Authorized requisite: course 31. Recommended: course C228A or C228B. Selected topics similar to those considered in course C228B, but with focus on contemporary figures. May be repeated for credit with consent of instructor. Concurrently scheduled with course C127C. S/U or letter grading.

229. Seminar: Critical Thinking. (4) Seminar, three hours. Selected topics in history, theory, and pedagogy of critical thinking. May be repeated for credit with consent of instructor. S/U or letter grading.

230. Seminar: Logic. (4) Seminar, four hours. May be repeated for credit with consent of instructor. S/U or letter grading.

231. Seminar: Intensional Logic. (4) Seminar, four hours. Topics may include logic of sense and denotation, modal logic, logic of demonstratives, epistemic logic, intensional logic of Principia Mathematica, possible worlds semantics. May be repeated for credit with consent of instructor. S/U or letter grading.

232. Philosophy of Science. (4) Seminar, three hours. Topics selected in philosophy of science. May be repeated for credit with consent of instructor. S/U or letter grading.

233. Seminar: Philosophy of Physics. (4) Seminar, four hours. May be repeated for credit with consent of instructor. S/U or letter grading.

234. Topics in Philosophy of Science. (4) Seminar, three hours. One or more selected topics in philosophy of science. May be repeated for credit with consent of instructor. May not be used to satisfy special area requirement. S/U or letter grading.

235. Philosophy of Mathematics. (4) Seminar, three hours. Topics selected in philosophy of mathematics. May be repeated for credit with consent of instructor. S/U or letter grading.

Group III: Ethics and Value Theory

241. Topics in Political Philosophy. (4) Seminar, four hours. Topics selected in political philosophy (e.g., justice, democracy, human rights, political obligation, alienation). May be repeated for credit with consent of instructor. S/U or letter grading.

244. Topics in Value Theory: Rationality and Action. (4) Seminar, three hours. Selected topics on normative issues in practical rationality or philosophy of action. Topics may include moral and practical dilemmas, nature of reasons for action, rationality of morality and prudence, weakness of will, freedom of will, and decision theory. May be repeated for credit with consent of instructor. S/U or letter grading.

244B. Topics in Value Theory: Moral Responsibility and Free Will. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Examination of philosophical problems surrounding moral responsibility and free will, using contemporary or classical readings in attempt to understand kind of freedom required for moral agents. May be repeated for credit. May be concurrently scheduled with course C154B. S/U or letter grading.

245. History of Ethics: Modern. (4) Lecture, three hours; discussion, one hour. Requisite: one of Kant's ethical theory. May be repeated for credit with consent of instructor. May be concurrently scheduled with course C151B. S/U or letter grading.

246. Seminar: Ethical Theory. (4) Seminar, four hours. Selected topics. Content varies from term to term. May be repeated for credit with consent of instructor. S/U or letter grading.

247. Topics in Political Philosophy. (4) Lecture, three hours; discussion, one hour. Analysis of some basic concepts in political theory. May be repeated for credit with consent of instructor. May be concurrently scheduled with course C156. S/U or letter grading.

248. Problems in Moral Philosophy. (4) Seminar, four hours. Intensive study of significant problems or problems similar to those considered in course C228B, selected problems, and contemporary issues in metaethics. Topics may include analysis of moral language, justification of moral beliefs, moral realism, skepticism, free will, moral motivation, etc. May be repeated for credit with consent of instructor. May be concurrently scheduled with course C153B. S/U or letter grading.

254. Legal Theory Workshop. (1 to 8) Seminar, three hours. Students engage in readings, discussion, and analysis of philosophical issues in law of leading scholars from around country. Presentation of works in progress by visiting scholars every two weeks. Study by students of papers to be presented to gain background in relevant topics and to be prepared for speakers' presentations. Presentation of student papers to class for discussion. Substantial analytical paper required. Concurrently scheduled with Law 555. In Progress (254A) and letter (254B) grading.

255. Seminar: Aesthetic Theory. (4) Seminar, four hours. Selected topics. May be repeated for credit with consent of instructor. S/U or letter grading.

256. Topics in Legal Philosophy. (4) Same as Law M217.) Lecture, three hours. Examination of topics such as concept of law, nature of justice, problems of punishments, legal reasoning, and obligation to obey the law. May be repeated for credit with consent of instructor.

257. Philosophy Legal Theory. (1 to 8) Same as Law M257A. Seminar, three hours. Selected topics in philosophy of law. May be repeated for credit with consent of instructor. S/U or letter grading.

257A-257B. Philosophy Legal Theory. (1 to 8) (Same as Law M524.) Seminar, two hours. Course M257A is enforced. Selected topics in philosophy of law. May be repeated for credit with consent of instructor. In Progress (M257A) and S/U or letter (257B) grading.

258. Contemporary Philosophy of Law. (4) Seminar, three hours. Limited to graduate students. Recent contributions to theoretical literature on contract law.
Possible topics include purpose or function of contract law, relationship of contracts to promises, whether fault should play larger (or smaller) role in contract law remedial approaches to breach including larger role for unjust enrichment, and contract law's treatment of fraud and deception. Readings from legal and philosophical literature. S/U or letter grading.

259. Philosophical Research in Ethics and Value Theory. (G) (4) Seminar, two hours. Preparation: completion of proposition requirement. Presentation of ongoing research by graduate students. Participants make presentations, analyze and discuss presentations, and select and discuss philosophical texts related to presentations. Must be taken for 4 units in quarters in which students present their own research. May be repeated for credit with consent of instructor. S/U or letter grading.

Group IV: Metaphysics and Epistemology

270. Epistemology of Science. (4) Seminar, three hours. Selected philosophical topics at intersection of epistemology and philosophy of science including scientific knowledge, inference to best explanation, understanding, cognitive attitudes in science, probabilistic reasoning, and social epistemology of science. May be repeated for credit with consent of instructor. S/U or letter grading.

271. Seminar: Topics in Metaphysics and Epistemology. (4) Seminar, three hours. May be repeated for credit with consent of instructor. S/U or letter grading.

272. Topics in Philosophy of Mind and Language. (4) Seminar, three hours. One or more selected topics in philosophy of mind and/or language. May be repeated for credit with consent of instructor. May not be used to satisfy special area requirement. S/U or letter grading.

275. Human Action. (4) Preparation: two upper-division philosophy courses. Examination of theories, concepts, and problems concerning human actions. Topics may include analysis of intentional actions; determinism and freedom; nature of explanations of intentional actions. May be repeated for credit with consent of instructor.

280. 20th-Century Continental Philosophy. (4) Seminar, three hours. May be repeated for credit with consent of instructor. S/U or letter grading.

281. Seminar: Philosophy of Mind. (4) Seminar, three hours. May be repeated for credit with consent of instructor. S/U or letter grading.

282. Seminar: Metaphysics. (4) Seminar, three hours. May be repeated for credit with consent of instructor. S/U or letter grading.

283. Seminar: Theory of Knowledge. (4) Seminar, three hours. May be repeated for credit with consent of instructor. S/U or letter grading.

284. Seminar: Philosophy of Perception. (4) Seminar, three hours. May be repeated for credit with consent of instructor. S/U or letter grading.

285. Philosophy of Psychoanalysis. (4) Seminar, three hours. Examination of topics such as nature and validity of psychoanalytic explanations and interpretations, psychoanalysis and language, metapsychological concepts such as the unconscious, ego, id, superego, defense mechanisms, and psychoanalytic conception of human nature. S/U or letter grading.

286. Philosophy of Psychology. (4) Seminar, four hours. Relevance of computer simulation to accounts of thinking and meaning; relations between semantical theory and learning theory; psychological aspects of theory of syntax; behaviorism, functionalism, and alternatives; physiology and psychology. S/U or letter grading.

287. Seminar: Philosophy of Language. (4) Seminar, three hours. May be repeated for credit with consent of instructor. S/U or letter grading.

288. Seminar: Wittgenstein. (4) Seminar, three hours. May be repeated for credit with consent of instructor. S/U or letter grading.

289. Seminar: Philosophy of Religion. (4) Seminar, four hours. May be repeated for credit with consent of instructor. S/U or letter grading.

Special Studies

290. Workshop: Philosophy of Language. (2 or 4) Seminar, two hours. Ongoing discussion of current issues in philosophy of language based on contemporary texts and current research. Presentations of ideas by attending faculty and graduate students with open discussion. May be repeated for credit with consent of instructor. S/U grading.

291. Workshop: Philosophy of Mathematics. (4) Seminar, three hours. Ongoing discussion of current issues in philosophy of mathematics based on contemporary texts and current research. Presentations of ideas by attending faculty and graduate students with open discussion. May be repeated for credit with consent of instructor. S/U or letter grading.

292. Philosophical Research in History of Philosophy. (2 to 4) Seminar, two hours. Prerequisite: graduate standing or consent of instructor. Ongoing discussion of current issues in history of philosophy based on contemporary texts and current research. Presentations of ideas by attending faculty and graduate students with open discussion. May be repeated for credit with consent of instructor. S/U grading.

299. Seminar: Philosophical Research. (4) Seminar, three hours. Preparation: advancement to candidacy. Presentation of ongoing research by graduate students or faculty members. Participants make presentations, analyze and discuss presentations of others, and read and discuss philosophical texts related to presentations. May be repeated for credit with consent of instructor. S/U grading.

495. Teaching College Philosophy. (2 to 4) Seminar, to be arranged. Seminars, workshops, and apprentice teaching. Selected topics, including evaluation scales, various teaching strategies and their effects, and other topics in college teaching. May be repeated for credit. S/U grading.

501. Cooperative Program. (2 to 8) Preparation: consent of UCLA graduate adviser and graduate dean, and host campus instructor, department chair, and graduate dean. Used to record enrollment of UCLA students in courses taken under cooperative arrangements with USC. S/U grading.

596. Directed Individual Studies. (2 to 12) Tutorial, to be arranged. Properly qualified graduate students who wish to pursue one problem through reading or advanced study may do so if their proposed project is acceptable to one staff member. May be repeated for credit. S/U or letter grading.

597. Directed Studies for Graduate Examinations. (2 to 12) Tutorial, to be arranged. Preparation for MA comprehensive examinations or PhD oral qualifying examinations. S/U grading.

599. Research for PhD Dissertation. (2 to 12) Tutorial, to be arranged. Preparation: advancement to PhD candidacy. May be repeated for credit. S/U grading.
affinity has existed between astronomy and physics, and the intellectual development of the two disciplines has often proceeded synergistically. Newton’s discovery of the laws of mechanics and universal gravitation not only explained motion on Earth, but brought the heavens and Earth into a single quantitative framework in which both are governed by the same laws. The revolutionary discoveries of twentieth-century physics—quantum mechanics and nuclear physics—were rapidly adopted by astronomers to interpret the spectroscopic observations of the stars and to construct accurate models of stellar structure. Einstein’s general theory of relativity predicted the expansion of the universe and that most awesome compaction of matter—the black hole.

Today astronomers study the accretion of matter onto supermassive black holes in quasars and search the most distant regions of the universe to learn about the exotic physical conditions that existed when the universe’s expansion was only fractions of a second old. By measuring the gravitational interactions on distance scales from galaxies to the vast superclusters of galaxies, astronomers have concluded that most of the universe’s matter is dark or nonluminous; physicists have speculated that this dark matter may consist of yet-undiscovered exotic particles that are predicted by the most advanced theories of elementary particle physics.

Department of Physics and Astronomy faculty members and students are able to study the universe in the holistic manner that is demanded by the breadth of these two disciplines.

### Undergraduate Study

#### Astronomy Courses

Astronomy 3 is the fundamental one-term course for students who do not major in physical sciences and should be taken in the first or second year. Astronomy 4, 5, and 6 develop the topics covered in course 3 to somewhat greater depths but are still aimed at nonscience majors. Course 4 discusses stellar and supermassive black holes; course 5 concentrates on the problem of life in the universe; course 6 discusses the structure and evolution of the universe. Astronomy 81, 115, and 117 are general survey courses recommended for science majors in their second year. They systematically introduce astrophysics and require a good background in physics and mathematics (at least two terms of the Physics 1 series and two terms of the Mathematics 31 and 32 series).

### Physics Courses

Students who wish to use physics to satisfy part of the general education requirements in the physical sciences and who have no mathematics background beyond the high school mathematics required for admission to UCLA may take Physics 10.

Physics 1A, 1B, and 1C, or 1AH, 1BH, and 1CH form sequences of courses in general physics for majors in Physics.

The department takes into account prior preparation in physics. If students feel their background would permit acceleration, they may be exempted from one course in the 1A, 1B, 1C sequence by taking the final examination with a class at the end of any term. This serves as a placement examination. A satisfactory score on the College Board Advanced Placement Physics C Mechanics Test may also serve as a placement examination, but placement is not automatic. Students should discuss such possibilities with their departmental adviser.

Physics 5A, 5B, 5C form a one-year sequence of courses in basic physics for students in the biological and health sciences.

Any two or more courses from Physics 1A, 1AH, and 5A are limited to a total of 6 units of credit.

### Undergraduate Majors

#### Astrophysics BS

#### Learning Outcomes

The Astrophysics major has the following learning outcomes:

- Ability to apply knowledge of classical mechanics, electromagnetism, quantum mechanics, and thermal physics to understand and analyze a broad variety of physical phenomena
- Application and improvement of proficiency in mathematics skills in calculus, differential equations, and linear algebra
- Understanding and analysis of phenomena in astronomy and astrophysics including planets, stars, galaxies, and cosmology
- Ability to make accurate and precise physical measurements using modern laboratory instruments and computerized data acquisition
- Ability to critically analyze and interpret data in order to draw valid scientific conclusions
- Ability to present clear written and oral accounts of scientific results
- Scientific, mathematical, computing, and laboratory skills that enable pursuit of career objectives in graduate or professional schools, in a teaching career, or in a scientific career in government or industry

#### Entry to the Major

##### Transfer Students

Transfer applicants to the Astrophysics major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two astrophysics courses, two years of calculus, one and one half years of calculus-based physics with laboratory for majors, and one programming course.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.
Learning Outcomes

Requirements

Preparation for the Major

Required: Astronomy 81; Physics 1A or 1AH, 1B or 1BH, 1C or 1CH, 4AL, 4BL, 17, 32; Mathematics 31A or 31AL, 31B, 32A, 32B, 33A, 33B; and one course from Computer Science 30, 31, or Program in Computing 10A, or demonstrated ability to program.

Recommended: Chemistry and Biochemistry 20A.

The Major


Honors Program

In addition to completing all courses required for the major, students must complete two terms of Astronomy 199.

Policies

The Major

Each course taken to fulfill any of the requirements for the major must be taken for a letter grade.

Honors Program

Senior majors in Astrophysics with a 3.5 grade-point average in all upper-division courses are eligible for the honors program. To receive honors and highest honors at graduation, the grade-point average must remain at 3.5 and 3.75 or better, respectively.

Biophysics BS

The goal of the Biophysics major is to provide students with a broad training that allows them to enter competitive graduate programs in biophysics, molecular biology, and biological physics. It also aims at providing students with a solid, quantitative background for careers in the medical field of the future as well as in molecular biology, neuroscience, and biological physics which are all emerging as important and rapidly developing areas of physics. The major is designed to provide students with a flexible scientific/technical training that allows them to explore different career paths and tailor their class work to their scientific interests. The program aims at providing an opportunity to the students to become scientific leaders, bringing the analytic and experimental techniques of different fields to bear on the fascinating world of the physics of living systems.

Learning Outcomes

The Biophysics major has the following learning outcomes:

- Ability to apply knowledge of classical mechanics, electromagnetism, quantum mechanics, and thermal physics to understand and analyze a broad variety of physical phenomena
- Application and improvement of proficiency in mathematics skills in calculus, differential equations, and linear algebra
- Ability to understand and analyze basic phenomena in biological science
- Ability to make accurate and precise physical measurements using modern laboratory instruments and computerized data acquisition
- Ability to critically analyze and interpret data in order to draw valid scientific conclusions
- Ability to present clear written and oral accounts of scientific results
- Scientific, mathematical, computing, and laboratory skills that enable pursuit of career objectives in graduate or professional schools, in a teaching career, or in a scientific career in government or industry

Each course taken to fulfill any of the requirements for the major must be taken for a letter grade.

An overall 2.0 grade-point average in all upper-division courses is required.

Honors Program

Senior majors in Biophysics with a 3.5 grade-point average in upper-division major courses are eligible for the honors program in biophysics. To receive honors and highest honors at graduation, the grade-point average must remain at 3.5 and 3.75 or better, respectively.

Physics BS

The Physics BS major should be pursued if students intend to continue toward the PhD in Physics.

A detailed brochure on the major is available from the Undergraduate Office, 1-707A Physics and Astronomy Building.

Learning Outcomes

The Physics major has the following learning outcomes:

- Ability to apply knowledge of classical mechanics, electromagnetism, quantum mechanics, and thermal physics to understand and analyze a broad variety of physical phenomena
- Application and improvement of proficiency in mathematics skills in calculus, differential equations, and linear algebra
- Ability to understand and analyze physical phenomena in one or more specialized areas of physics of choice, which facilitates subsequent research
- Ability to make accurate and precise physical measurements using modern laboratory instruments and computerized data acquisition
- Ability to critically analyze and interpret data in order to draw valid scientific conclusions
- Ability to present clear written and oral accounts of scientific results
- Scientific, mathematical, computing, and laboratory skills that enable pursuit of career objectives in graduate or professional schools, in a teaching career, or in a scientific career in government or industry

Entry to the Major

Transfer Students

Transfer applicants to the Physics BS major with 90 or more units must have completed the following introductory courses prior to admission to UCLA: two years of calculus, one and one half years of calculus-based physics with laboratory for majors, one year of general biology with laboratory for majors, and one year of general chemistry with laboratory for majors.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major

Required: Physics 1A or 1AH, 1B or 1BH, 1C or 1CH, 4AL, 4BL, 17, 32; Chemistry and Biochemistry 20A, 20B; Life Sciences 7A; Mathematics 31A or 31AL, 31B, 32A, 32B, 33A, 33B. Recommended: Physics 18L.

The Major

Required: Physics 105A, 110A, 110B, 112, 115A, 115B, M180G, C187A, C187B; three additional upper-division elective courses selected from one group or among the three groups.


Group C (Molecular and Cellular Biophysics): Chemistry 153A, 153L, Molecular, Cell, and Developmental Biology 100 or 165A.

Honors Program

In addition to completing all courses required for the major, students must complete two 4-unit terms of Physics 199.

Policies

The Major

Students will be advised when a course has additional lower-division requirements.
Senior majors in Physics with a 3.5 grade-point average in upper-division mathematics and physics courses are eligible for the honors program in physics.

**The Major**

*Required:* Physics 105A, 105B, 110A, 110B, 112, 115A, 115B, 115C. The remainder of the course of study consists of a plan, to be worked out by students in consultation with their designated departmental adviser, that details which courses they take to complete the degree. There are four overall requirements: (1) the plan must be worked out five terms before students expect to graduate; (2) there must be one course in the Physics 170 series and one course in the Physics 180 series, or two courses in the Physics 180 series; (3) there must be three additional upper-division courses in the plan, preferably selected from Physics 108, 114, 117, M122, 123, 124, 126, 127, 128, 132, 140A, 140B, 144, 150, C186, C187A; (4) there must be written rationale for the plan. Except for the Physics 180 laboratories, the courses need not be in the Physics and Astronomy Department. However, it is expected that the courses fit into a coherent structure. It is important that the structure and rationale are thought out carefully, as the plan must be endorsed by the designated adviser and be approved by the departmental academic affairs committee. Pre-approved plans of study are available from the undergraduate advisers.

Students preparing for graduate school should take additional courses in physics and mathematics. Physics 108, 114, M122, 123, 124, 126, 132, 140A, and 140B are recommended.

**Honors Programs**

In addition to completing all courses required for the major, students must complete one of the two honors program options.

*Research-based:* students must complete two 4-unit terms of Physics 199.

*Course-based:* students must take 4 units of Physics 197—an in-depth individual study of a physics topic of interest to the student under the guidance of a faculty member and resulting in a written report—and are also required to take Mathematics 115A and two courses selected from Mathematics 120A, 120B, Physics 221A, or 221B.

**Policies**

The Major

Each course taken to fulfill any of the requirements for the major must be taken for a letter grade.

A C average is required in all courses taken to satisfy the major requirements.

**Honors Programs**

Senior majors in Physics with a 3.5 grade-point average in upper-division mathematics and physics courses are eligible for the honors program in physics.

**Physics BA**

The Physics BA major is intended to provide students with a strong background in physics, yet allow students flexibility to study other fields as well. It should be of particular interest to students who want to double major or who want to teach science. Students who intend to continue work toward the PhD in Physics are advised to pursue the Physics BS.

A detailed brochure on the major is available from the Undergraduate Office, 1-707A Physics and Astronomy Building.

**Learning Outcomes**

The Physics major has the following learning outcomes:

- Ability to apply knowledge of classical mechanics, electromagnetism, quantum mechanics, and thermal physics to understand and analyze a broad variety of physical phenomena
- Application and improvement of proficiency in mathematics skills in calculus, differential equations, and linear algebra
- Ability to critically analyze and interpret data in order to draw valid scientific conclusions
- Ability to present clear written and oral accounts of scientific results
- Scientific, mathematical, computing, and laboratory skills that enable pursuit of career objectives in graduate or professional schools, in a teaching career, or in a scientific career in government or industry

**Entry to the Major**

**Transfer Students**

Transfer applicants to the Physics BA major with 90 or more units must complete the following introductory courses prior to admission to UCLA: two years of calculus, one and one half years of calculus-based physics with laboratory for majors, and one general chemistry course for majors.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

**Requirements**

**Preparation for the Major**

*Required:* Physics 1A or 1AH, 1B or 1BH, 1C or 1CH, 4AH, 4BL, 17, 32, Chemistry and Biochemistry 20A; Mathematics 31A or 31AL, 31B, 32A, 32B, 33A, 33B; Program in Computing 10A or Computer Science 30 or 31.

**The Major**


**Policies**

Each course taken to fulfill any of the requirements for the major must be taken for a letter grade.

A C average in the upper-division physics courses is required.

**Graduate Majors**

**Astronomy and Astrophysics MAT**

**Requirements**

Official, specific degree requirements are detailed in official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

**Astronomy and Astrophysics MS, PhD**

**Requirements**

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

**Master of Quantum Science and Technology**

**Requirements**

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

**Physics MAT**

**Requirements**

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

**Physics MS, PhD**

**Requirements**

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.
3. Nature of the Universe. (5)
Lecture, three hours; laboratory, two hours. Not open to students with credit for or currently enrolled in course 81 or 82. No special mathematical preparation required beyond that necessary for admission to UCLA in freshman standing. Course for general UCLA students, normally not intending to major in physical sciences. Introduction to vast range of cosmic phenomena including planets in our solar system and beyond, stars, supernova explosions, black holes, galaxies, and universe as whole. P/NP or letter grading.

4. Black Holes and Cosmic Catastrophes. (4)
Lecture, three hours; discussion, one hour. No mathematical preparation required beyond that necessary for admission to UCLA in freshman standing. Course for general UCLA students, normally not intending to major in physical sciences. Introduction to exotic cosmic phenomena such as black holes, and their bizarre effects on fabric of space and time. Some black holes form in violent events that terminate lives of stars, while formation of much more massive black holes at centers of galaxies is still mysterious. Covers cosmic catastrophes including stellar explosions and mergers, supernovae, gamma-ray bursts, and gravitational waves. Discussion of black holes in popular culture. P/NP or letter grading.

5. Life in the Universe. (4)
Lecture, three hours; discussion, one hour. No special preparation required. Topics include formation and evolution of Earth and Sun, life on Earth, origin and evolution of life, solar system, habitability, extra-solar planets, search for intelligent life in universe, and interstellar travel. Draws primarily from biology and chemistry but includes some astronomy, geology, and physics. P/NP or letter grading.

Lecture, three hours; discussion, one hour. No special mathematical preparation required beyond that necessary for admission to UCLA in freshman standing. Course for general UCLA students, normally not intending to major in physical sciences. Cosmology is study of large-scale properties of universe. Consideration of origin, fate, composition, and shape of universe, and its past and future. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1)
Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members. Open to students of all levels and majors, and open to students who have expressed interest in many paths of discovery at UCLA. P/NP grading.

81. Fundamentals of Astrophysics.
Lecture, three hours; discussion, one hour. Requisites: Mathematics 31A, 31B, and Physics 1A or 1AH. Open to qualified sophomores and upper-division students. Students develop understanding of fundamental physical concepts such as gravity and rotation, and how these concepts connect to stars and planets. Overview of stars and stellar evolution, and tools and methods important to astrophysics such as telescopes and spectroscopy. P/NP or letter grading.

82. Astrophysics II: Stellar Evolution, Galaxies, and Cosmology.
Lecture, three hours; discussion, one hour. Requisites: Mathematics 31A, 31B, and Physics 1A or 1AH. Recommended: course 81, Physics 1B and 1C (or 1BH and 1CH). Open to qualified sophomore and upper-division students. Basic principles of stellar structure and evolution. Rotation and magnetic fields, novae, supernovae, neutron stars, and black holes. Pulsars and galactic X-ray sources. Milky Way galaxy and interstellar medium. Galactic and extragalactic nuclear activity. Introduction to cosmology: Hubble law, thermal history of Big Bang, and earliest moments of universe. P/NP or letter grading.

88A. Lower-Division Seminar: Cosmic Evolution. (2)
Seminar, two hours. Limited to freshmen. Varied astronomical and physical processes of evolution; discussion of how, over vast spans of time, the structure and composition of cosmic evolution have transformed universe from fiery origin at Big Bang into abode for intelligent life. P/NP or letter grading.

89. Honors Seminars. (1)
Seminar, three hours. Limited to students enrolled in lower-division astronomy. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be repeated for maximum of 4 units. Individual honors content required. Honors content noted on transcript. Letter grading.

89HC. Honors Contracts. (1)
Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

110. Introduction to Galactic Astronomy. (4)
Lecture, three hours; discussion, one hour. Requisites: course 81, Mathematics 31A, 31B, and Physics 1A or 1AH. Open to qualified sophomores and upper-division students. Introduction of principles important for understanding components and evolution of Milky Way galaxy. Topics include interstellar medium, star and planet formation, examination of basic physical processes governing compact stellar remnants such as white dwarfs, neutron stars, and black holes. Overview of structure and properties of Milky Way galaxy. P/NP or letter grading.

117. Introduction to Extragalactic Astrophysics. (4)
Lecture, three hours; discussion, one hour. Requisites: courses 81, 115, Mathematics 31A, 31B, and Physics 1A or 1AH. Open to qualified sophomore and upper-division students. Examination of basic processes governing expansion of universe from Big Bang to structure formation and galaxy evolution. Development of physics behind processes of galaxy formation and evolution. P/NP or letter grading.

127. Stars from Birth to Death. (4)
Lecture, three hours; discussion, one hour. Requisites: courses 81, 115, 117. In-depth exploration into lives and deaths of stars. Covers production of energy and physics of stellar interiors and atmospheres. Topics include star formation, evolution, and death. P/NP or letter grading.

140. Galaxies. (4)
Lecture, three hours; discussion, one hour. Requisites: courses 115, 117. Designed for upper-division Astrophysics and Physics majors. Focus on basic unit of structure in universe: galaxies. Consideration of physics governing their structure and evolution, and how galaxy population has evolved over history of universe. Other topics include Milky Way, spiral dynamics, active galactic nuclei, and galaxy clusters. P/NP or letter grading.

141. Cosmology. (4)
Lecture, three hours; discussion, one hour. Requisites: courses 115, 117. Designed for upper-division Astrophysics and Physics majors. In-depth exploration of Big Bang model for universe. Examination of data and theory and how cosmologists measure its properties, and how universe has changed since Big Bang. P/NP or letter grading.

142. Data and Computation in Astrophysics. (4)
Lecture, three hours; discussion, one hour. Requisites: courses 81, 115, 117, and Computer Science 30 or 31 or Programming in Computing 10A. Designed for upper-division Astrophysics and Physics majors. Project-based introduction to data and computation in astrophysics context. Students develop core computational toolkit for data retrieval, processing, analysis, visualization, and interpretation. Topics include analysis of large, heterogeneous datasets; high-performance computation; numerical simulations; and scientific numerical methods. P/NP or letter grading.

143. Planets and Exoplanets. (4)
Lecture, three hours; discussion, one hour. Requisites: courses 81, 115, 117. Designed for upper-division Astrophysics and Physics majors. Focus on detection and characterization of planets orbiting other stars, and on physical processes that determine their formation, structure, and evolution. Topics of discussion include formation of terrestrial planet systems, extrasolar planets, and composition and evolution of solar system properties. P/NP or letter grading.

144. Star Formation and Interstellar Medium. (4)
Lecture, three hours; discussion, one hour. Requisites: courses 81, 115, 117. Designed for upper-division Astrophysics and Physics majors. Focus on formation and evolution of stars and interstellar clouds in galaxies, including dust, and neutral, ionized, and molecular gas. Consideration of dynamical processes, such as shocks and expanding supernova remnants. Covers processes of star formation and interstellar medium. Computational techniques are presented. P/NP or letter grading.

145. High-Energy Astrophysics. (4)
Lecture, three hours; discussion, one hour. Requisites: Physics 17, 115, 117, 118. Designed for upper-division Astrophysics and Physics majors. Introduction to high-energy universe, with overview of sources of high energy (X-ray and gamma-ray) emission. Covers important energetic particles in galaxy and connection of high-energy astrophysics to cosmology and particle physics. P/NP or letter grading.

146. Astronomical Instrumentation. (4)
Lecture, three hours; discussion, one hour. Requisites: courses 81, 115, 117. Designed for upper-division Astrophysics and Physics majors. Focus on modern observational techniques for astronomy. Topics include optical and infrared techniques, integration of telescope design, charge-coupled devices, and infrared detectors. These also include adaptive optics systems and high contrast detection methods. Covers all other electromagnetic windows from near-infrared to gamma rays. Other topics include neutrino, dark matter, and gravitational wave detection. P/NP or letter grading.

150. Astrophysics Laboratory. (4)
Lecture, two hours; laboratory, four hours. Designed for juniors/seniors in astrophysics, physics, or related field. Topics include statistical methods in astrophysics, instrumentation, data reduction, and optics. Laboratory experiments include observation of Sun, stars, and other astronomical objects. Emphasis on use of computer software for making measurements from two-dimensional astronomical images. P/NP or letter grading.

198. Advanced Honors Seminars. (1)
Seminar, three hours. Limited to students 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

198HC. Honors Contracts. (1)
Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.
196. Research Colloquia in Astrophysics. (2) Seminar, two hours. Designed to bring together students undertaking supervised tutorial research in seminar setting with other or more faculty members to discuss their own work or related work in discipline. Led by one supervising faculty member. May be repeated for credit. P/NP grading.

194. Research Group Seminars: Astrophysics. (1) Research group meeting, one hour. Designed for undergraduate students who are part of research group/laboratory. Discussion of research of faculty members or students with regard to understanding methodology in field and/or laboratory equipment. May be repeated for credit. P/NP grading.

196. Research Apprenticeship in Astrophysics. (2 to 4) Tutorial, three hours per week per unit. Limited to juniors/seniors with overall 3.0 grade-point average. Entry-level research apprenticeship for upper-division students under guidance of faculty mentor. May be repeated for credit. Individual contract required. P/NP grading.

197. Individual Studies in Astronomy. (2 to 4) Tutorial, four hours. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Asigned reading and tangible evidence of mastery of subject matter. S/U grading. May be repeated for credit. Individual contract required. P/NP or letter grading.

198. Honors Research in Astrophysics. (2 to 4) Tutorial, 12 hours. Limited to juniors/seniors with minimum overall 3.0 grade-point average. Development and completion of honors thesis or comprehensive research project under direct supervision of faculty member. May be repeated for credit. Individual contract required. Letter grading.

199. Directed Research or Senior Project in Astronomy. (2 to 4) Tutorial, two hours. Limited to junior/seior Astrophysics and Physics majors. Supervised individual research or investigation under guidance of faculty mentor. Current paper required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses


277A-277B. Astronomy Research Project. (6-4) Tutorial, to be arranged. Designed for second-year graduate astronomy students. Two-term research project planned by student and faculty advisor. Any suitable research topic in astronomy or astrophysics, culminating in written report at end of second term. S/U (277A) and letter (277B) grading.

278. Special Topics in Astronomy. (2 or 4) Seminar, to be arranged. Informal course with lecture/seminar format, focusing on one of set of specific topics in astronomy. S/U (2-unit course) or letter (4-unit course) grading.

279. Seminar: Current Astronomical Research. (2) Seminar, one hour. Astronomy and astrophysics colloquium with lectures on current research by local and visiting researchers. S/U grading.


281. Quantum Mechanics for Astrophysicists. (4) Lecture, four hours. Designed for departmental graduate students. Quantum mechanical topics in areas of interest for astrophysics applications. Hydrogen atom, relativistic transitions, closed atomic, molecular spectroscopy including electronic, vibrational, and rotational transition, nuclear reaction theory. Letter grading.


283. Numerical and Statistical Methods. (4) Lecture, three hours. Topics selected by instructor in mathematical, numerical, and statistical methods of relevance to modern astrophysical research topics. Include Fourier transforms, filtering, and power spectra, numerical algorithms, N-body codes, maximum likelihood, Bayesian inference, and error estimation. Letter grading.

284. Order of Magnitude Astrophysics. (4) Lecture, three hours. Practice in real-time problem solving covering all fields of astrophysics. Topics selected by instructor. Students work together and individually to solve problems on blackboard using basic physics and order of magnitude estimations. Letter grading.

M285. Origin and Evolution of Solar System. (4) (Same as Earth, Planetary, and Space Sciences 285B) Lecture, four hours. Dynamical problems of solar system; chemical evidences from geochemistry, meteorites, and solar atmosphere; nucleosynthesis; Origin and evolution, and termination; solar nebula, hydromagnetic processes, formation of planets and satellite systems. Content varies from year to year. May be repeated for credit. S/U grading.


287. Practice of Scientific Presentations in Astronomy. (2) Formerly numbered M297. Lecture, one hour. Training and practice in giving scientific presentations in context of astronomy and astrophysics. Includes brief review of relevant scientific communication. Students give talks on their research and/or other topics and receive detailed feedback from both peers and instructor. May be repeated for credit. S/U grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprentice guid- ance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

596A. Directed Individual Studies. (4 to 10) Tutorial, to be arranged. May be repeated at discretion of department. S/U grading.

596L. Advanced Study and Research at Lick Observatory. (4 to 12) Tutorial, to be arranged. Designed for graduate students who require observational experience, as well as those working on observational problems for their thesis. May be repeated at discretion of department. S/U grading.

599. PhD Research and Writing. (10 to 12) Tutorial, to be arranged. May be repeated at discretion of department. S/U grading.

Physics

Lower-Division Courses

1A. Physics for Scientists and Engineers: Mechanics (Honors). (5) Lecture/demonstration, four hours; discussion, one hour. Enforced requisites: Mathematics 31A, 31B. Enforced corequisite: Mathematics 32A. Enriched preparation for upper-division physics courses. Same material as course 1A but in greater depth; recommended for Physics majors and other students desiring such coverage. P/NP or letter grading.


1BH. Physics for Scientists and Engineers: Oscil- lations, Waves, Electric and Magnetic Fields (Honors). (5) Lecture/demonstration, four hours; discussion, one hour. Enforced requisites: course 1A or 1B, Mathematics 31B, 32A. Enriched corequisite: Mathematics 32B. Enriched preparation for upper-division physics courses. Same material as course 1B but in greater depth; recommended for Physics majors and other students desiring such coverage. P/NP or letter grading.


105B. Analytic Mechanics. (4) Lecture, three hours; discussion, one hour. Requisite: course 105A. Conserved quantities, collisions and scattering, special relativity, non-inertial reference frames, rigid bodies, coupled oscillators, and normal modes. P/NP or letter grading.

108. Optical Physics. (4) Lecture, three hours; discussion, one hour. Requisite: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH). Interaction of light with matter; dispersion theory, oscillator strength, line intensities, interferences, and few other topics. Electromagnetic theory, coherence and noncoherence, Kirchhoff formula, diffraction, Huygens principle. P/NP or letter grading.

130. Electricity and Magnetism. (4) Lecture, three hours; discussion, one hour. Requisite: course 115A. Corequisite: course 105B. Maxwell's equations, electromagnetic waves, energy and momentum, radiation, Lorentz invariance. P/NP or letter grading.


114. Mechanics of Wave Motion and Sound. (4) Lecture, three hours; discussion, one hour. Requisite: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH). 105A, 105B. Mathematics 32B, 33A, 33B. Vectors and fields; operators and matrices; waves, sound, light, and optics; interactions of waves and sound. P/NP or letter grading.


105B. Analytic Mechanics. (4) Lecture, three hours; discussion, one hour. Requisite: course 105A. Conserved quantities, collisions and scattering, special relativity, non-inertial reference frames, rigid bodies, coupled oscillators, and normal modes. P/NP or letter grading.

108. Optical Physics. (4) Lecture, three hours; discussion, one hour. Requisite: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH). Interaction of light with matter; dispersion theory, oscillator strength, line intensities, interferences, and few other topics. Electromagnetic theory, coherence and noncoherence, Kirchhoff formula, diffraction, Huygens principle. P/NP or letter grading.

130. Electricity and Magnetism. (4) Lecture, three hours; discussion, one hour. Requisite: course 115A. Corequisite: course 105B. Maxwell's equations, electromagnetic waves, energy and momentum, radiation, Lorentz invariance. P/NP or letter grading.


114. Mechanics of Wave Motion and Sound. (4) Lecture, three hours; discussion, one hour. Requisite: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH). 105A, 105B. Mathematics 32B, 33A, 33B. Vectors and fields; operators and matrices; waves, sound, light, and optics; interactions of waves and sound. P/NP or letter grading.


105B. Analytic Mechanics. (4) Lecture, three hours; discussion, one hour. Requisite: course 105A. Conserved quantities, collisions and scattering, special relativity, non-inertial reference frames, rigid bodies, coupled oscillators, and normal modes. P/NP or letter grading.

108. Optical Physics. (4) Lecture, three hours; discussion, one hour. Requisite: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH). Interaction of light with matter; dispersion theory, oscillator strength, line intensities, interferences, and few other topics. Electromagnetic theory, coherence and noncoherence, Kirchhoff formula, diffraction, Huygens principle. P/NP or letter grading.

130. Electricity and Magnetism. (4) Lecture, three hours; discussion, one hour. Requisite: course 115A. Corequisite: course 105B. Maxwell's equations, electromagnetic waves, energy and momentum, radiation, Lorentz invariance. P/NP or letter grading.


114. Mechanics of Wave Motion and Sound. (4) Lecture, three hours; discussion, one hour. Requisite: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH). 105A, 105B. Mathematics 32B, 33A, 33B. Vectors and fields; operators and matrices; waves, sound, light, and optics; interactions of waves and sound. P/NP or letter grading.


105B. Analytic Mechanics. (4) Lecture, three hours; discussion, one hour. Requisite: course 105A. Conserved quantities, collisions and scattering, special relativity, non-inertial reference frames, rigid bodies, coupled oscillators, and normal modes. P/NP or letter grading.

108. Optical Physics. (4) Lecture, three hours; discussion, one hour. Requisite: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH). Interaction of light with matter; dispersion theory, oscillator strength, line intensities, interferences, and few other topics. Electromagnetic theory, coherence and noncoherence, Kirchhoff formula, diffraction, Huygens principle. P/NP or letter grading.
123. Atomic Structure. (4) Lecture, three hours; discussion, one hour. Requisites: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), Mathematics 32B, 33A, 33B. Corequisite: course 115C. Theory of atomic structure, interaction of radiation with matter. P/NP or letter grading.

124. Nuclear Physics. (4) Lecture, three hours; discussion, one hour. Requisites: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), Mathematics 32B, 33A, 33B. Corequisite: course 115C. Nuclear properties, nuclear forces, nuclear structure, nuclear decays, and nuclear reactions. P/NP or letter grading.

125. Elementary Particle Physics. (4) Lecture, three hours; discussion, one hour. Requisites: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), Mathematics 32B, 33A, 33B. Corequisite: course 115C. Introduction to particle physics. The four basic interactions: strong, electromagnetic, weak, and gravitational. Properties of baryons, mesons, quarks, and leptons; conservation laws, symmetries and broken symmetries; the Standard Model; experimental techniques; new physics at the new accelerators. P/NP or letter grading.


128. Cosmology and Particle Astrophysics. (4) Lecture, three hours; discussion, one hour. Requisites: course 110A. Introduction to cosmology and high-energy particle astrophysics, based on latest developments of both experiment and theory. Special emphasis on unified picture of universe that emerges from particle interactions, QCD, and cosmology. Intensive discussion of unsolved problems and future prospects to help students determine their opportunities in future. Letter grading.

130. Mathematical Methods of Physics. (4) Lecture, three hours; discussion, one hour. Requisites: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), Mathematics 32B, 33A, 33B. Vectors and fields in space, linear transformations, matrices, and determinants; Fourier series and integrals. P/NP or letter grading.

132. Mathematical Methods of Physics. (4) Lecture, three hours; discussion, one hour. Requisites: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), 131, Mathematics 32B, 33A, 33B. Functions of a complex variable, including Riemann surfaces, analytic functions, Cauchy theorem and formula, Taylor and Laurent series, calculus of residues, and Laplace transforms. P/NP or letter grading.

140A. Introduction to Solid-State Physics. (4) Lecture, three hours; discussion, one hour. Enforced requisite: course 112. Introduction to basic theoretical concepts of solid-state physics with applications. Crystal symmetry; cohesive energy; diffusion of electron, neutron, and electromagnetic waves in a lattice; reciprocal lattice; phonons and their interactions; free electron theory of metals; energy bands. Letter grading.


144. Polymer Physics. (4) Lecture, three hours; discussion, one hour. Enforced requisites: courses 105A, 110A, and 112 or Chemistry 110A. How physical properties of polymers can be derived from mathematical models. Comparison of models to calculations based on random walk problem and used to predict mechanical characteristics of large molecules. Study of networks of polymers and poly-nuclear chains, with focus on their viscoelastic properties. Discussion of movement of individual polymers within melts. Study of examples of more complex structures, such as polymer fractals. Consideration of applications of all of the above to biology, with focus on their potential role in evolution and current hypothesis of origins on life. P/NP or letter grading.


170A. Electronics for Physics Measurement. (4) Formerly numbered 117) Lecture, two hours; laboratory, four hours. Requisites: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), Mathematics 32B, 33A, 33B. Hands-on experimental course to develop understanding of design principles in modern electronics for physics measurements. Broad introduction to analog and digital electronics from practical viewpoint, followed by examination of typical circuits for scientific instrumentation and of thy of methods of computer data acquisition and signal processing. Letter grading.

170E. Introduction to Symbolic Computation. (4) Lecture, one hour; laboratory, three hours. Corequisite: course 105A. Students learn to use Mathematica or other computer programs for mathematics problems that arise in physics. Use of skills developed to solve complicated systems, model behavior, and explore in greater depth other advanced physics topics. P/NP or letter grading.

C170M. Machine Learning for Physical Sciences Laboratory. (4) Formerly numbered 170M.) Lecture, two hours; laboratory, four hours. Requisites: courses 1A, 1B, 1C (or 1AH, 1BH, 1CH), Mathematics 32A, 33A, or equivalent. Preparation: some experience in programming using Python. Project-based course designed for students with no previous experience in machine learning to learn about methods and algorithms in machine learning and their application to scientific problems in physical sciences. Development of experience in compilation, analysis, and cleaning of data. Machine learning topics include classification, regression, dimensionality reduction, clustering, and kernel methods. Concurrently scheduled with course C270M. P/NP or letter grading.

170N. Computational Physics and Astronomy Laboratory. (4) Formerly numbered 190N.) Lecture, two hours; laboratory, four hours. Requisites: courses 105B, 110B, 112 (or Astronomy 115), 115B. Prior experience in working with computers is helpful but not required. Project-based course to design and experience in solving physics and astronomy problems on computers. Project-based course, with projects selected from core areas of classical mechanics, electrodynamics, quantum mechanics, statistical mechanics, and astronomy. Introduction to problems and to required numerical methods in lectures, so students can write programs in one modern programming language of their choice (Python recommended) and carry out laboratory experiments with it, with results documented in reports. P/NP or letter grading.

180A. Nuclear Physics Laboratory. (4) Lecture, two hours; laboratory, four hours. Recommended: course 124. Students conduct experiments about cosmic ray counting and statistics, radioactive decay law measurement, beta decay spectrometer, and Compton scattering. Experiment perform data analyses of experimental data; and write scientific report for each experiment. P/NP or letter grading.

180C. Solid-State Laboratory. (4) Lecture, two hours; laboratory, four hours. Recommended: course 140A. Laboratory experiments explore real and collective phenomena in solids, such as quantum oscillations, superconductivity, and ferroelectricity. Use of introduced methods to investigate bulk properties, such as magneto-transport, dielectric, and magnetic responses. P/NP or letter grading.

180D. Acoustics Laboratory. (4) Lecture, two hours; laboratory, four hours. Recommended: courses 112, 114. Study of waves and sound propagation in different media, including gases, liquids, and superfluids. Description of experiments in terms of hydrodynamic theory. Students gain experience in basic electronics, amplifiers, microphones, cymographs, and fast Fourier transforms. P/NP or letter grading.

180E. Plasma Physics Laboratory. (4) Lecture, two hours; laboratory, six hours. Recommended: course 110B. Students gain experience with computer programming, especially Python, is helpful but not required. Provides hands-on experience in measuring key properties of weak and electromagnetic interactions using cosmic ray muons. Provides exposure to common experimental techniques in particle physics. Overview of standard methods for tractation of basic particle detection techniques, introductory probability and statistics, and analysis with Python and ROOT. P/NP or letter grading.

180F. Elementary Particle Laboratory. (4) Lecture, two hours; laboratory, six hours. Recommended: courses 110A, 115B. Students gain experience of conducting independent research in experimental biological physics. Construction of modern microscope. Use of microscope to image biological specimens. Students learn optics, diffraction, imaging, microscopy, computational physics, and/or fluorescence correlating. P/NP or letter grading.

180Q. Quantum Mechanics Laboratory. (4) Lecture, two hours; laboratory, six hours. Requisites: courses 110B, 115A. Students gain experience of conducting independent research in experimental biological physics. Construction of modern microscope. Use of microscope to image biological specimens. Students learn optics, diffraction, imaging, microscopy, computational physics, and/or fluorescence correlating. P/NP or letter grading.

C186. Neurophysiology: Brain-Mind Problem. (4) Lecture, three hours; discussion, one hour. Requisites: courses 1A, 1B, and 1C, or 5A, 5B, and 5C, or 6A, 6B, and 6C. Chemistry 14A or 20A, Mathematics 3A, 3B, 3C, 33A. How does mind emerge from brain? Provides summary of basic biophysics of neurons, synapses, and plasticity. Introduction to commonly used experimental and theoretical methods, including measuring, quantifying, and modeling neural activity, and their relative strengths and weakness and use of them to understand link between neural circuits, their emergent
neural dynamics, and behavior in example model systems. Discussion of mechanisms of interaction between neural circuits and their role in cognition, learning, and memory. Research and development of computational neuroscience, 741BA. Biological Physics: Life at Rest. (4) Lecture, three hours. Limited to seniors/graduates. Departmentally sponsored special topics courses such as pilot courses or those taught by visiting faculty members. May be repeated for credit. P/NP or letter grading.

C187B. Biological Physics II: Life in Motion. (4) Lecture, three hours; discussion, one hour. Limited to junior/senior Astrophysics majors. Departmentally sponsored special topics courses such as pilot courses or those taught by visiting faculty members. May be repeated for credit. P/NP or letter grading.


188B. Special Courses in Physics. (4) Lecture, three hours; discussion, one hour. Limited to junior/senior Astrophysics majors. Departmentally sponsored special topics courses such as pilot courses or those taught by visiting faculty members. May be repeated for credit. P/NP or letter grading.


188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced requisite: course 188BA. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory or laboratory component, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

189. Advanced Honors Seminars. (1) Seminar. Three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities, under direct course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities, under direct course instructor. May be repeated for credit. Maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

190. Research Colloquia in Physics. (2) Seminar, two hours. Designed to bring together students under-taking supervised tutorial research in seminar setting with one or more faculty members to discuss their own work or related work in discipline. Led by one supervising faculty member. May be repeated for credit. P/NP grading.

191. Variable Topics Research Seminars: Physics and Astronomy. (4) Seminar, three hours. Participating research seminar on advanced topics in physics and astronomy. May be repeated for credit by petition. P/NP or letter grading.

192. Undergraduate Practicum in Physics. (2 to 4) Seminar, three hours. Limited to seniors. Training and supervised practicum for advanced undergraduate students. Students assist in preparation of materials and development of innovative programs with guidance of faculty members. Small course setting. May be repeated for credit. P/NP or letter grading.

192M. Methods and Application of Collaborative Learning Theory in Physical Sciences. (2 to 4) Seminar, two hours. Limited to seniors. Course from 1A, 1B, 1C, 5A, 5B, SC, or 131, course 192S (may be taken concurrently), and at least one term of prior experience in same course in which collaborative learning theory is practiced and refined under supervision of instructors. With instructor guidance, students apply pedagogical principles based on current education research, assist with the development of innovative instructional materials, and give frequent feedback on their progress. May be repeated four times for credit. Letter grading.

192S. Introduction to Collaborative Learning Theory and Practice. (1) Seminar. Limited to seniors. Course from 1A, 1B, 1C, 5A, 5B, SC, or 131, course 192S (may be taken concurrently), and at least one term of prior experience in same course in which collaborative learning theory is practiced and refined under supervision of instructors. With instructor guidance, students apply pedagogical principles based on current education research, assist with the development of innovative instructional materials, and give frequent feedback on their progress. May be repeated four times for credit. Letter grading.


193A. Atomic, Molecular, and Optical Physics. (2) Lecture, one hour. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory or laboratory component, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.


194. Discussion, one hour.限于2014年或2015年。在UCLA开展的研究项目的成果。Letter grading.


196. Research Apprenticeship in Physics. (2 to 4) Tutorial, three hours. Limited to seniors with overall 3.0 grade-point average. Development and completion of honors thesis or comprehensive research project under direct supervision of faculty member. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

210. Modern Physics Research Areas. (2) Review of modern physics research areas, with emphasis on those actively pursued at UCLA. S/U grading.


221B. Quantum Mechanics. (4) Lecture, four hours; discussion, one hour. Requisite: course 221A. Symmetries and conservation laws, perturbation theory, scattering theory. Special topics such as Berry’s phase and related geometric and topological aspects. Letter grading.
221C. Quantum Mechanics. (4) Lecture, four hours. Requisites: courses 221A, 221B. Quantum theory of radiation, introduction to relativistic quantum mechanics, elements of many-body theory, and special topics. S/U or letter grading.


229E. Particle Astrophysics: Exploring Earliest and Extreme Universe. (4) Lecture, three and one half hours. Requisites: courses 210A, 210B, 221A, 221B. Recommended: course 226A. Introduction to high-energy astrophysics with discussion of latest developments in both experiment and theory. Special emphasis on unified picture of universe that emerges from particle physics, astronomy, and cosmology. S/U or letter grading.

230A. Quantum Field Theory. (6) Lecture, four hours. Requisite: course 221C or equivalent and knowledge of basic special relativity. Introduction to relativistic quantum field theory starting from first principles. Topics include particles as unitary representations of Poincare group, fields as finite-dimensional representations of Lorentz group; discrete space-time symmetries; quantization of free scalar, spinor, and gauge fields; Casimir effect; classical interacting scalar, spinor, and gauge fields; and LSZ formalism for calculation of S-matrix from quantum field theory correlators. S/U or letter grading.


230D. Quantum Field Theory. (4) Lecture, four hours. Requisites: courses 221A, 221B, 221C. Topics in modern quantum field theory, gauge and group theory, instantons, and other topological defects, large N methods, finite temperature field theory, lattice field theory, effective field theory methods and classical Lagrangians, conformal field theory, and topological aspects of anomalies. S/U or letter grading.

231A. Methods of Mathematical Physics. (4) Lecture, four hours. Widely used mathematical methods and their applications to physics including basic topology, complex analysis, Fourier analysis, elliptic functions, linear differential operators, Green functions, and special functions associated with eigenvalue problems of ordinary and partial differential operators on flat and curved spaces. Letter grading.


232A-232B. Relativity. (4-4) Special and general theories with applications to elementary particles and astrophysics.

232C. Special Topics in General Relativity. (4) Lecture, four hours. S/U or letter grading.

232M. Geometry and Physics. (4) Same as Mathematics 221M. Lecture, three hours. Interdisciplinary course on topics at interface between physics, quantum fields and superstrings and mathematics of differential and algebraic geometry. Topics include supersymmetry, Seiberg/Witten theory, conformal field theory, Calabi-Yau geometry and duality, integrable systems. S/U grading.


237B. String Theory. (4) Lecture, four hours. Requisite: course 237A. Current topics in string theory, which may include anti-deSitter/conformal field theory (AdS/CFT) correspondence, string dualities, compactifications and connections to quantum information. S/U or letter grading.


243M. Statistical Mechanics of Living Systems from Active Matter to Immune System. (2 to 4 Seminar, four hours. Exploration of how concepts and models from statistical physics can be used to gain quantitative and intuitive understanding of biological phenomena. Introduction to analytical and computational methods for describing stochastic complex systems, with application to problems in mechanics and dynamics of active matter and evolutionary dynamics of immune system. S/U or letter grading.


266. Seminar: Propagation of Waves in Fluids. (2 to 4) Seminar, three hours. S/U or letter grading.

268. Seminar: Spectroscopy. (2 to 4) Seminar, three hours. S/U or letter grading.

269A. Seminar: Nuclear Physics. (2 to 4) Seminar, three hours. S/U or letter grading.

269B. Seminar: Elementary Particle Physics. (2 to 4) Seminar, three hours. S/U or letter grading.

269C. Seminar: Accelerator Physics. (2 to 4 Seminar, three hours. Requisites: courses 241A, 241B, 241C, 242A, 242B. Covers advanced topics in condensed matter physics with focus on topology (both in real and momentum space), topological insulators, topological superconductors, quantum Hall effects and topological phenomena in two and three dimensions. Insights drawn from quantum pumping and bulk-edge correspondence, especially emphasized. Range of topics based on topological defects in magnetic and superconducting systems and exploration of notions of topology for quantum transport and quantum information applications. S/U or letter grading.

270D. Strobe Seminar: Frontiers in Imaging and Microscopy. (4 Seminar, one hour. Discussion with leading figures of frontiers of imaging and microscopy fields, including multi-dimensional electron microscopy at atomic resolution, real-time functional three-dimensional X-ray imaging of advanced materials, advanced optical nano-imaging, and integrative approaches and underpinning technologies for different imaging modalities. May be repeated twice for credit. S/U grading.

270M. Machine Learning for Physical Sciences Laboratory. (4) Lecture, two hours; laboratory, four hours. Requisites: courses 1A, 1B, 1C or (1AH, 1BH, 1CH). Mathematics 32A, 32A, or equivalent. Preparations covering experience with Python and Jupyter. Project-based course designed for students with no previous experience in machine learning to learn about methods and algorithms in machine learning and their application to scientific problems in physical sciences. Development of experience in compilation, analysis, and cleaning of data. Machine learning topics include classification, regression, dimensionality reduction, clustering, and kernel methods. Concurrently scheduled with course 170M. S/U or letter grading.
290. Research Tutorial: Plasma Physics. (2 or 4) Three terms required of each graduate student doing research in this field, ordinarily during second or third year. Seminar and discussion by staff and students directed toward problems of current research interest in plasma physics group, both experimental and theoretical. May be repeated for credit. S/U grading.


292. Research Tutorial: Spectroscopy, Low-Temperature, and Solid-State Physics. (2 or 4) Required of each graduate student doing research in these fields, ordinarily during second or third year. Seminar and discussion by staff and students on problems of current research interest in spectroscopy, low-temperature, and solid-state physics. May be repeated for credit. S/U grading.

293. Research Tutorial: Current Topics in Physics. (2) Lecture, one hour. Seminar and discussion by staff and students on current topics in physics, both experimental and theoretical topics not limited to one field of physics. Strongly recommended for graduate students in physics. May be repeated for credit. S/U grading.

294. Research Tutorial: Accelerator Physics. (2 or 4) Lecture, one hour; discussion, two hours. Required of each graduate student doing research in this field. Seminar and discussion by faculty, postdoctoral fellows, and graduate students. May be repeated for credit. S/U grading.

295. Research Tutorial: Soft Matter/Biological Physics. (2) Tutorial, one hour. Required of each graduate student doing research in this field. One-hour presentation by teaching assistant on general ongoing research or on agreed on topic. Students answer critical questions and participate in critical examination of research. May be repeated for credit. S/U grading.

296. Research Topics in Physics. (2) Advanced study and analysis of current topics in physics. Discussion of current research and literature in research specialty of faculty member teaching course. May be repeated for credit. S/U grading.

297. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under the guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

490. Scientific Writing. (2) Seminar, 90 minutes. Practical guidelines for improved scientific writing and oral presentation. Writing of several short papers with subsequent analysis in class. Short blackboard and/or viewgraph presentations. Topics vary. S/U grading.

495. Teaching College Physics. (2) Seminar; two hours; multi-day intensives training at beginning of Fall Quarter. Required of all new teaching assistants. Special course for teaching assistants designed as an introduction to teaching college physics, with emphasis on applying discussed techniques in classroom. Ideas and skills learned are evaluated in the sections of each teaching assistant. May be repeated for credit. S/U grading.

596. Directed Individual Studies. (2 to 12) Tutorial, to be arranged. May be repeated for credit. S/U grading.

597. Preparation for Master’s Comprehensive Examination or PhD Qualifying Examinations. (4) Tutorial, to be arranged. May be repeated twice for credit. S/U grading.

598. Master’s Thesis Research and Writing. (4) Tutorial, to be arranged. May be repeated twice for credit. S/U or letter grading.

599. PhD Research and Writing. (4 to 12) Tutorial, to be arranged. May be repeated for maximum of 18 units. S/U grading.

Quantum Science and Technology Graduate Courses

M205. Quantum Programming. (4) Same as Computer Science M238.) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: Mathematics 115A. History of quantum computing; notion of qubit; four postulates that provide interface to quantum mechanics; concepts of quantum circuit and universal gate set; quantum teleportation; superdense coding; no-cloning theorem; suite of fundamental quantum algorithms including Shor's algorithm; Grover's algorithm, and quantum approximate optimization algorithm; several quantum programming languages and how they compare; quantum simulations; quantum cryptography; quantum error correction; quantum advantage. Students implement several quantum algorithms in multiple languages and run them on both simulators and quantum computer. Letter grading.

402. Quantum Information. (4) Lecture, three hours; discussion, one hour. Requisite: Physics 245. Density matrix evolution, decoherence, characterization of quantum states, distance measures between quantum states, fidelity, quantum error correction, entropy and information, and quantum information theory. May not be repeated for credit. Letter grading.

403. Theory of Quantum Devices. (4) Lecture, four hours. Requisites: course 402, Physics 245. Study advanced theories, with some elements of quantum transport and advanced many-body physics. Introduction and comparison of different types of physical building blocks available for quantum computing. Addresses practical issues, such as scalability and comparison between different physical platforms and associated devices. Letter grading.

410. Quantum Optics Laboratory. (4) Laboratory, eight hours. Limited to Master of Quantum Science and Technology students. Examination and use of modern optics, including lasers, optics, fibers, polarization manipulation, and photon counting. Use of techniques of quantum optics to demonstrate concepts of quantum mechanics, including superposition, quantum measurement, hidden variable theories, and Bell's inequality. Application of quantum optics to quantum information science. Letter grading.

411. Ensemble Quantum Computing Laboratory. (4) Laboratory, four to eight hours. Limited to Master of Quantum Science and Technology students. Introduction to and applications of ensembles of quantum mechanical spins, theoretical description in language of density matrices, and experimental techniques using nuclear magnetic resonance to prepare, manipulate, and measure their properties. Letter grading.

412. Solid State Quantum Computing Laboratory. (4) Laboratory, four to eight hours. Requisites: courses 410, 411. Introduction to materials, devices, and techniques of semiconductor-based qubit technology. Students choose total of 10 weeks of laboratory modules from among following list according to their interests and availability: semiconductor device processing and metrology; transmission electron microscopy (TEM); pulsed control of NV centers in diamond; quantum options and single photon interferometry; quantum key distribution and quantum random number generation; quantum zero effects. Letter grading.

597. Master of Quantum Science and Technology Comprehensive Examination Preparation. (4) Tutorial, to be arranged. Limited to Master of Quantum Science and Technology students. Students conduct an independent research project in the field of quantum science and technology in a supervised setting, either a research group at UCLA (or other affiliated and approved university setting) or through an internship at a company, national laboratory, or similar institution. S/U grading.

PHYSICS AND BIOLOGY IN MEDICINE

Interdepartmental Program
David Geffen School of Medicine
B2-115 Center for Health Sciences
Box 95172
Los Angeles, CA 90095-1721

Physics and Biology in Medicine 310-825-7811
Program e-mail
Michael McNitt-Gray, PhD, Chair
Magnus Dahlbom, PhD, Graduate Adviser

Faculty Committee
Stephen C. Cannon, MD, PhD (Molecular and Medical Pharmacology, Physiology)
Magnus Dahlbom, PhD (Molecular and Medical Pharmacology)
Dieter R. Enzmann, MD (Radiological Sciences)
Michael McNitt-Gray, PhD (Radiological Sciences)
Michael L. Steinberg, MD, FACP (Radiation Oncology)

Overview
The Physics and Biology in Medicine Master of Science (MS) and Doctor of Philosophy (PhD) Program is a CAMPEP-accredited interdepartmental graduate program supported by the
departments of Molecular and Medical Pharmacology, Radiation Oncology, and Radiological Sciences. It offers training in four specialties: medical imaging, molecular and cellular oncology, molecular imaging, and therapeutic medical physics.

**Facilities**

Specialized facilities for training and research are available in the departmental laboratories, as well as in the Crump Institute for Molecular Imaging, Center for Medical Countermeasures against Radiation, and Center for Computer Vision and Imaging Biomarkers, among others. Highly specialized equipment includes state-of-the-art medical imaging modalities such as MRI, CT angiography, and PET/CT in both clinical and preclinical settings, as well as advanced radiotherapy treatment and planning facilities. The program prepares students for careers as independent researchers or professional medical physicists, and graduates pursue academic, industrial, government, and clinical careers, regardless of which specialty they pursue.

**Career Prospects**

Graduates in physics and biology in medicine can expect to engage in any combination of research, teaching, clinical service, and consultation. Biomedical physicists are usually employed in hospitals frequently associated with a medical school, where they are members of the academic staff. They are also in demand in high-technology private industry engaging in research and development of diagnostic equipment. In government agencies, biomedical physicists are involved in the formulation and enforcement of regulations applied to the use of radiation in health care delivery.

**Graduate Major**

**Physics and Biology in Medicine MS, PhD**

**Requirements**

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

**Physics and Biology in Medicine**

**Lower-Division Courses**

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

**Upper-Division Course**

199. Directed Research in Biomedical Physics. (2 to 4) Tutorial, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper required. May be repeated for credit. Individual contract required. P/NP or letter grading.

**Graduate Courses**

200A. Physics and Chemistry of Nuclear Medicine. (4) Lecture, three hours; discussion, one hour. Nuclear structure, statistics of radioactive decay, nuclear radiations and their interaction with matter, nuclear decay processes, nuclear reactions, and compartment models. Physical and chemical properties of radioactive preparations used in nuclear medicine. Basic principles of nuclear medicine imaging, SPECT, and PET. S/U or letter grading.

200B. Nuclear Medicine Instrumentation. (4) Lecture, one hour; laboratory, three hours. Requisite: course 200A. Introduction to nuclear medicine instrumentation, including gamma chambers, probe and well scintillation detectors, scintillation cameras, and single photon and positron emission computed tomography. S/U or letter grading.

201. Medical Radiation Accelerator Design. (4) Lecture, three hours. Requisite: course 216. Overview of physical principles involved in design of current particle accelerators (electron, proton, heavy particle) and analysis of characteristics of current accelerators and facility design. S/U or letter grading.


204. Introductory Radiation Biology. (4) Lecture, three hours. Effect of ionizing radiation on radiation-resistant and radiation-sensitive organisms, with topics centered on instrumentation, measurement techniques, and basic radiation damage. S/U or letter grading.

205. Physics of Diagnostic Radiology. (4) Lecture, three hours; laboratory, one hour. Production of X rays, basic interactions between X rays and matter, X-ray system components, physics principles of medical radiography, radiographic image quality, fluoroscopy, image intensifiers, special procedures, X-ray protection. Laboratory experiments illustrate basic theory. S/U or letter grading.

206. Advanced Instrumentation. (4) Lecture, three hours; discussion, one hour. Requisite: course 205. Introduction to recent advances in digital diagnostic imaging systems, with topics centered on instrumentation including digital radiography, computed radiography, computed tomography, magnetic resonance imaging, and positron emission tomography. S/U or letter grading.


208A. Medical Physics Laboratory: Medical Imaging. (4) Discussion, two hours; laboratory, four hours. Requisite: course 203. Hands-on experience performing acceptance testing and quality control checks of imaging equipment such as fluoroscopy, digital subtraction angiography, mammography, ultrasound, magnetic resonance imaging, computed tomography, and computed radiography. S/U or letter grading.

208B. Medical Physics Laboratory: Radiation Therapy. (4) Discussion, two hours; laboratory, four hours. Requisite: course 203. Hands-on experience calibrating treatment planning and radiation therapy equipment. S/U or letter grading.


210. Modern Vision in Medical Imaging. (4) Lecture, three hours; discussion, one hour. Recommended requisites: Mathematics 155, Program in Computing 10A. Study of image segmentation, feature extraction, object recognition, classification, and visualization with biomedical applications. Topics include region-growing, edge detection, mathematical morphology, clustering, neural networks, and volume rendering in lectures, case studies, and programming projects. S/U or letter grading.

211. Medical Ultrasound. (4) Lecture, 90 minutes; laboratory, two hours. Preparation: one calculus course. Production of real-time ultrasound images, traditional and 3D modeling and design, Doppler and color flow instrumentation, biohazards of ultrasound, ultrasound phantom design, and ultrasound tissue characterization techniques. Laboratory included. S/U or letter grading.

212. Biochemical Basis of Positron-Emission Tomography (PET). (4) Lecture, three hours; discussion, one hour. Introduction to biochemical processes and application of radionuclides to study metabolism noninvasively by positron-emission tomography (PET). Validation of kinetic models to derive quantitative information from PET. Introduction to clinical and experimental application of PET. S/U or letter grading.

213. Quantitative Autoradiography. (4) Lecture, three hours; discussion, one hour. Application of quantitative autoradiography for estimating brain and heart functions. Topics include 2-deoxyglucose method for metabolic ratio; iododeoxyuridine method for blood flow; amino acid method for protein synthesis; quantitative receptor autoradiography; neuroanatomy and neurophysiology of autoradiogram and PET scan interpretation. S/U or letter grading.

214. Medical Image Processing Systems. (4) Lecture, three hours; discussion, one hour. Requisites: courses 209, 210. Advanced image processing and image analysis techniques applied to medical images. Discussion of approaches to computer-aided diagnosis and image quantitation, as well as application of pattern classification techniques (neural networks and discriminant analysis). Examination of problems from several imaging modalities (CT, MRI, CR, and mammography). S/U or letter grading.

**Physics and Biology in Medicine / 743**


218. Radiologic Functional Anatomy. (4) Lecture, three hours; discussion, one hour. Introduction to human anatomy, cellular, tissue, and physiological function as visualized through microscopy, molecular imaging, radiog- raphy, CT, MRI, ultrasonography, PET, and SPECT. Letter grading.


220A-220D. Laboratory Rotations in Biomedical Physics. (2–2) Laboratory, two hours. Laboratory proj- ects to provide students with introduction to field. One oral and one written presentation required. S/U grading.

220A. Biophysics; 220B. Medical Imaging; 220C. Therapeutic Medical Physics; 220D. Radiation Biology and Experimental Radiation Therapy.

221. Applied Health Physics. (4) Lecture, three hours; discussion, one hour. Requisite: course 216. Basics of radiation safety as applied to medical applications. In- troduction to all legal requirements pertaining to med- ical use of radioactivity. Letter grading.


223. Seminar: Radiation Biology. (4) Seminar, four hours. Exploration of physiological and molecular mechanisms that impact on response of normal and malignant tissues to ionizing radiation, with particular emphasis on critical and high in-depth analysis of ap- proaches through which such responses can be mod- ified in therapeutic setting. Understanding of rationale for integrating biological information into process of treatment planning and delivery. S/U grading.

225. Contrast Mechanisms and Quantification in Magnetic Resonance Imaging. (4) Lecture, four hours. Requisite: course M219. Introduction to magnetic res- onance contrast mechanisms and quantification tech- niques in magnetic resonance imaging. Topics include exogenous and endogenous contrast mechanisms, measuring tissue perfusion and permeability, ad- vanced diffusion and q-space analysis, chemical ex- change and magnetization transfer imaging, and re- laxometry. Letter grading.

227. Human Disease: Current and Future Role of Biomedical Physics. (4) Lecture, three hours; discus- sion, one hour. Present and future roles of biomedical physics in diagnosis and treatment of human disease, with focus on interdisciplinary nature of this field. Ex- ploration of two diseases in depth with detailed de- scription of roles of physics-based diagnostic imaging and therapeutic options for each disease. Description of current and future developments as well as tech- niques that exploit intersection between diagnosis and therapy. Letter grading.

M229. Advanced Topics in Magnetic Resonance Imag- ing. (4) Same as Bioengineering M229.) Lecture, four hours. Requisite: course M219. Designed for stu- dents interested in pursuing research related to devel- opment or translation of new magnetic resonance im- aging (MRI) techniques. Basic tools and understanding of recent MRI developments that have had high im- pact on field, involve novel pulse sequence design or image reconstructions, and enable imaging of anatomy or function in way that surpasses what is currently possible with any modality. Topics include in- depth sequence simulation, RF pulse design, rapid image acquisition, parallel imaging, compressed sensing, image reconstruction and processing, motion encoding and compensation, chemical-shift imaging and understanding, and understanding/avoiding arti- facts. Programming exercises in MATLAB to provide hands-on experience. Letter grading.

231. Advanced Treatment Planning in Radiation Therapy. (3) Lecture, four hours. Enforced requisites: courses 203, 216. Designed to provide theoretical and practical understanding of treatment planning tech- niques utilized in radiation therapy. Topics include clin- ical treatment planning workflow, general planning principles and strategies, and specific considerations for various treatment delivery modalities and ad- vanced treatment techniques. Detailed discussion on dose calculation algorithms and inverse planning and optimization. Clinical treatment planning demonstra- tion using commercial treatment planning systems used to provide planning of clinical applica- tions and implementation. S/U or letter grading.

M248. Introduction to Molecular Imaging. (4) Same as Bioengineering M248 and Pharmacology M248.) Lecture, three hours; laboratory, one hour; outside study, seven hours. Exploration of role of molecular imaging in modern biology and medicine, including imaging physics, instrumentation, image processing, and applications of imaging and molecular techniques. Practical experience provided through series of im- aging laboratories. Letter grading.


269. Seminar: Medical Imaging. (1) Seminar, two hours; discussion, two hours. Preparation: successful comple- tion of Multidisciplinary Biomedical Image Registration II (M268) or equivalent. Letter grading.

PHYSIOLOGY

David Geffen School of Medicine

53-231 Center for Health Sciences

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Los Angeles, CA 90095-1751

Physiology

510-325-5882

E-mail contact

Stephen C. Cannon, MD, PhD, Chair

Yousang Gwack, PhD, Executive Vice Chair

Overview

Physiology is the science of the functional activ- ities of living systems. This covers a wide
range, including observations on humans and experiments on animals and model systems in order to understand principles. Physiology is the science most directly relevant to human medicine in all its specialties and to understanding all environmental factors affecting human life. It is also a pure science of great challenge because of the complexity of its problems and its extensive interaction with mathematical, physical, biochemical, and engineering sciences, as well as with other branches of biology.

Within the prescribed curriculum, students may specialize in cellular and molecular physiology, theoretical and mathematical physiology, and organ systems and integrative phenomena, including neuroscience and behavioral physiology.

The Department of Physiology offers post-doctoral training in research and welcomes students interested in articulated MD/PhD programs.

Applicants interested in pursuing graduate study may apply directly to the interdepartmental Molecular, Cellular, and Integrative Physiology Doctor of Philosophy (PhD) program. Physiology faculty information is available from the department.

### Graduate Courses

**M210. Molecular and Cellular Mechanisms of Neural Integration.** (5) (Same as Neuroscience M230 and Physiological Science M210.) Lecture, four hours; discussion, one hour. Requisite: Neuroscience M202. Introduction to mechanisms of synaptic processing. Selected problems of current interest, including regulation and modulation of transmitter release, molecular biology and physiology of receptors, cellular basis of integration in sensory perception and learning, neural nets and oscillators, and molecular events in development and sexual differentiation. Letter grading.

**220. Methods in Cell Physiology.** (8) Linear circuit analysis, including admittance, transfer admittance, transfer function, and filters using transform methods. Application of these concepts to electronic analog circuits in lectures and laboratory, with emphasis on operational amplifiers. Applications to electrophysiology include microelectrode amplifiers, voltage clamp and patch clamp techniques, with circuit analysis and noise considerations. Digital electronics cover logic gates, sequential circuits, and A/D and D/A conversion, with introduction to sampling theory.

**221. Cell Physiology: Excitability.** (6) Requisite: course 220. In-depth coverage of general properties of excitable cells, linear conductance changes, and generation and propagation of the nerve impulse. Voltage gating and gaging currents, as well as relationship between macroscopic conductance and single channel properties discussed in analytical detail using original publications.

**298. Current Topics in Physiology.** (2 to 4) Lecture, one hour; discussion, one hour. Designed for graduate students. Students read primary literature in a specified area and conduct or participate in discussions on these papers. May be repeated for credit. S/U or letter grading.

**596. Directed Individual Study or Research.** (2 to 12) Tutorial, to be arranged. S/U grading.

**597. Preparation for MS Comprehensive Examination or PhD Qualifying Examinations.** (2 to 12) Tutorial, to be arranged. S/U grading.

**598. Thesis Research for MS Candidates.** (2 to 12) Tutorial, to be arranged. S/U grading.

**599. Dissertation Research for PhD Candidates.** (2 to 12) Tutorial, to be arranged. S/U grading.

### Upper-Division Courses

**188SA. Individual Studies for USIE Facilitators.** (1) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

**188SB. Individual Studies for USIE Facilitators.** (1) Tutorial, to be arranged. Enforced requisite: course 188SA. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to finalize course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

**188SC. Individual Studies for USIE Facilitators.** (2) Tutorial, to be arranged. Enforced requisite: course 188SB. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE 885 course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

**199. Directed Research in Physiology.** (2 to 4) Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

### Lower-Division Courses

**19. Fiat Lux Freshman Seminars.** (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

**99. Student Research Program.** (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

### Faculty Roster

**Professors**

Matthew A. Barreto, PhD
Kathleen Bawn, PhD
Michael S.Y. Chwe, PhD
Joshua F. Dienstag, PhD (Shapiro Family Endowed Professor of Modern Political Theory)
Lorrie A. Frasure, PhD (Ralph Bunche Professor of International Studies)

Leslie N. Johns, PhD
Jeffrey B. Lewis, PhD
Michael F. Lotfchi, PhD
Susanne Lohmann, PhD
Kirstie M. McClure, PhD
Barry O’Neill, PhD
Karen J. Orren, PhD
Anthony R. Pagden, PhD
Davide Panagia, PhD
Erfrén O. Pérez, PhD
Mark A. Peterson, PhD
Daniel N. Posner, PhD (James S. Coleman Professor of International Development Studies)
Michael L. Ross, PhD
Gary M. Segura, PhD
Giulia Sissa, PhD
Richard H. Steinberg, JD, PhD (Jonathan D. Varat Endowed Professor of Law)
Robert F. Trager, PhD
Daniel S. Treisman, PhD
Lynn Vavreck, PhD (Marvin Hoffenberg Professor of American Politics and Public Policy)
David O. Wilkinson, PhD

**Professors Emeriti**

Joel D. Aberbach, PhD
Richard D. Anderson, Jr., PhD
James D. DeNardo, PhD
Barbara Geddes, PhD
Robert S. Gerstein, PhD
Miriam A. Golden, PhD
Edmond J. Keller, PhD
Deborah W. Larson, PhD
Carole Pateman, DPhil
David C. Rapoport, PhD
Ronald L. Rogowski, PhD
Richard N. Rosecrance, PhD
Thomas Schwartz, PhD
Richard L. Sklar, PhD
Steven L. Spiegel, PhD
Arthur A. Stein, PhD
Marc Trachtenberg, PhD
Charles E. Young, PhD
John R. Zaller, PhD

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Araceli (Cesi) Cruz, PhD
Chad J. Hazlett, PhD
Scott C. James, PhD
Natalie R. Masuoka, PhD
Margaret E. Peters, PhD
Christopher N. Tausanovitch, PhD
Michael F. Thies, PhD

**Assistant Professors**

Lachlan A. McNamee, PhD
Eric A. Min, PhD
Tejas Parasher, PhD
Daniel M. Thompson, MPP, PhD

**Adjunct Assistant Professor**

James A. Desveaux, PhD

**Political Science**

**College of Letters and Science**

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**Political Science**

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**College of Letters and Science**

**Political Science / 745**

**Faculty Roster**

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Joshua F. Dienstag, PhD (Shapiro Family Endowed Professor of Modern Political Theory)
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**Political Science**

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**Political Science**

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**Davide Panagia, PhD, Chair**

**Araceli (Cesi) Cruz, PhD, Vice Chair, Graduate Studies**

**Michael L. Ross, PhD, Vice Chair, Undergraduate Studies**

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Michael F. Thies, PhD

**Assistant Professors**

Lachlan A. McNamee, PhD
Eric A. Min, PhD
Tejas Parasher, PhD
Daniel M. Thompson, MPP, PhD

**Adjunct Assistant Professor**

James A. Desveaux, PhD

**Overview**

Political science investigates the nature, causes, and consequences of politics. The Department of Political Science has gained dis-
tinction in political economy, electoral behavior, comparative politics, and political theory. The department is strongly committed to teaching as well as research, with the primary goal of providing the best possible education for students seeking to develop an expertise in the field of political science by instilling skills in research and analytic reasoning.

Undergraduate Major

Political Science BA

The undergraduate major in the Department of Political Science aims to provide students with understanding of basic political processes and institutions as these operate in different national and cultural contexts. It also covers the interaction between nation states, the changing character of the relations between citizens and governments, and the values and criteria by which the quality of political life is judged. The program may be individually focused to serve the needs of the liberal arts major, the student seeking preparation for graduate work in political science, public administration, law, and other professional fields, and the student preparing for specialized roles in political and public organizations.

Learning Outcomes

The Political Science major has the following learning outcomes:

- Critical thinking about basic political processes, institutions, and concepts as they operate in different national and cultural contexts
- Impartial evaluation of arguments
- Application of mathematical and logical reasoning to political processes
- Use and evaluation of statistical and other types of evidence in arguments
- Recognition of limits of quantitative and non-quantitative analysis
- Knowledge of diverse theories of politics by engaging critically with texts, media, and contexts
- Employment of cultural, hermeneutical, normative, and historical approaches
- Location, evaluation, and use of information and scholarship needed to place particular political events in broader historical, cross-national, and theoretical contexts
- Demonstrated familiarity with various approaches to the study of politics, and their application to specific questions, puzzles, and debates
- Written and oral arguments using appropriate evidence, with sensitivity to opposing perspectives, about significant political processes, events, and concepts

Entry to the Major

Pre-major

All students intending to major in Political Science must enroll as Political Science pre-majors. After completion of preparation for the major courses, they need to petition to enter the major in the Undergraduate Office, 4269 Bunche Hall.

Transfer Students

Transfer applicants to the Political Science major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one statistics course and four courses from political theory, world politics, game theory, American politics, or comparative politics.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Policies

Students must complete all pre-major courses with a 2.0 grade-point average by the time they attain 135 units. Admission to the major is granted only after successful completion of all lower-division requirements.

Requirements

Preparation for the Major

Required: Four lower-division courses from Political Science 10, 20, 30, 40, 50. Students must also take Political Science 6 or 6R. Statistics 10 or 12 may be substituted for course 6 or 6R.

The Major

Required: Ten upper-division courses (40 units) selected from Political Science M105 through 199.

Upper-division political science courses are organized into six fields: Field I: Political Theory (numbered 111–119), Field II: International Relations (120–139), Field III: American Politics (140–149), Field IV: Comparative Politics (150–169), Field V: Methods and Models (170–179), and Field VI: Race and Ethnic Politics (180–187).

In fulfilling the requirement of 10 upper-division political science courses, students must satisfy the following:

1. A concentration in one field consisting of at least three upper-division courses in that field
2. A distribution requirement of at least one upper-division course in each of three different fields outside the field of concentration; multifield courses from the concentration field may not satisfy a distribution field
3. Four additional political science courses

Honors Program

To qualify for departmental honors at graduation, students must complete a senior thesis. Highest honors are awarded at the discretion of the honors program director and are based on both cumulative grade-point average in the major and the quality of the honors thesis to students who graduate with a final GPA in the major of at least 3.85, and who complete the senior honors thesis with a letter grade of A+.

Policies

The Major

Each course must be taken for a letter grade. Students are required to maintain a 2.0 overall grade-point average in all upper-division political science courses.

Courses 191H, 195CE, 198, and 199 may not be applied toward either the concentration or distribution requirement.

Honors Program

The department honors program is open to seniors and to students who (1) have completed five upper-division political science courses (two of which are in one field), (2) have a 3.5 grade-point average in upper-division political science courses, and (3) are eligible for College of Letters and Science honors. Students should have substantial experience in writing research papers before they enter the honors program or course 191H.

Successful completion of the honors program is indicated on the transcript and diploma.

Graduate Major

Political Science MA, CPhil, PhD

The graduate program leads to the PhD degree in Political Science (a master’s degree may be earned in the process of completing PhD requirements). It is designed to give students a strong foundation in the discipline while enabling them to acquire additional skills for advancing their professional careers.

Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announce ments, other publications, and websites of the schools, departments, and programs.

Political Science

Lower-Division Courses

6. Introduction to Data Analysis. (5) Lecture, three or four hours; discussion, one hour (when scheduled). Not open for credit to students with credit for course 6R. Introduction to collection and analysis of political data, with emphasis on application of statistical reasoning to study of relationships among political variables. Use of computer as aid in analyzing data from various fields of political science, among them comparative politics, international relations, American politics, and public administration. P/NP or letter grading.

6R. Introduction to Data Analysis—Research Version. (5) Lecture, three or four hours; discussion, one hour (when scheduled). Enforced corequisite: course 50R. Not open for credit to students with credit for course 6. Introduction to collection and analysis of political data, with emphasis on application of statistical reasoning to study of relationships among political variables. Use of computer as aid in analyzing data from comparative politics. P/NP or letter grading.

10. Introduction to Political Theory. (5) Lecture, three hours; discussion, one hour. Exposition and analysis of selected political theorists and concepts from Plato to the present. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.
20. World Politics. (5) Lecture, three hours; discussion, one hour. Required of all students concentrating in Field II. Introduction to problems of world politics. P/NI or letter grading.

30. Politics and Strategy. (5) Lecture, three or four hours; discussion, one hour (when scheduled). Introduction to study of strategic interaction in political applications. Use of game theory and other formal modeling strategies to understand politics. P/NI or letter grading.

40. Introduction to American Politics. (5) Lecture, three hours; discussion, one hour. Basic institutions and processes of democratic politics. Treatment of themes such as constitutionalism, representation, participation, and leadership. Course coupled with particular emphasis on the American case. P/NI or letter grading.

50. Introduction to Comparative Politics. (5) Lecture, three hours; discussion, one hour. Not open for credit to students with credit for course 200. Comparative study of constitutional principles, governmental institutions, and political processes in selected countries. P/NI or letter grading.

59. Introduction to Comparative Politics—Research Version. (5) Lecture, three or four hours; discussion, one hour (when scheduled). Enforced corequisite: course 6R. Not open for credit to students with credit for course 200. Comparative study of constitutional principles, governmental institutions, and political processes in selected countries, with emphasis on presentation and evaluation of quantitative evidence. P/NI or letter grading.

60. Ethics and Governance. (5) Lecture, three or four hours; discussion, one hour (when scheduled). Study of ethical and political thought in selected countries, with emphasis on issues of justice in the economic, social, and political spheres. Course designed as adjunct to lower-division lecture course. In-Field II. Introduction to problems of world politics. P/NP or letter grading.

60C. Honors Contracts. (1 to 2) Tutorial, three hours. Limited to 20 juniors. Designed as a tutorial in political thought. May be repeated for credit. P/NI or letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NI grading.

Field I: Political Theory

M111A. Ancient and Medieval Political Theory. (4) Same as Classics M121A. Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Exposition and critical analysis of major thinkers such as Machiavelli, Montesquieu, Locke, Rousseau, Smith, Condorcet, and Kant and questions such as representation, property, autonomy, and political economy. P/NP or letter grading.

111B. Early Modern Political Theory. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Exposition and critical analysis of major thinkers such as Ben-tham, De Tocqueville, Hegel, Mill, Marx, Nietzsche, Arendt, and Foucault and questions such as alienation, power, participation, and difference. P/NP or letter grading.

112A. Democratic Theory. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for seniors. Critical analysis of selected major authors, issues, and arguments in contemporary democratic theory.

M112B. Invention of Democracy. (5) Same as Classics M125B. Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Exposition and critical analysis of major thinkers such as Smith. Democracy was invented in ancient Greece as a political form grounded on equality before law, citizenship, and freedom. It came into existence as struggle by demos, people, aware of its excellence and proud of its power, kratos. It became only regime capable of including all members of community while disregarding wealth, status, and differing interests. Exploration of history and theory of ancient democracy. P/NP or letter grading.

113A. Problems in 20th-Century and Contemporary Political Theory. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Study and interpretation of theorists who have focused their analyses on social and political problems of 20th century. P/NI or letter grading.

113B. Politics, Theory, and Film. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Recommended requisite: course 10. Designed for juniors/seniors. Intense and individualized examination of politically significant films with respect to central issues in political philosophy, such as power and truth in light of relevant political theorists. P/NI or letter grading.

114A. American Political Thought I, 1620 to 1865. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Exposition and critical analysis of American political thinkers from Puritan period to Civil War. P/NI or letter grading.

114B. American Political Thought II, 1865 to Present. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Course 114A is not requisite to 114B. Designed for juniors/seniors. Exposition and critical analysis of American political thinkers from Reconstruction to present day. P/NI or letter grading.

115C. Citizenship and Public Service. (4) Same as Community Engagement and Social Change M115. Lecture, three or four hours; discussion, one hour (when scheduled). Recommended requisite: course 10. Designed for juniors/seniors. Study of ways in which political thinkers have conceived of ideas of citizenship and public service, how these ideas have changed over time, and frameworks for thinking about citizenship in era of markets and globalization. P/NI or letter grading.

115D. Diversity, Disagreement, and Democracy: Can’t We All Just Get Along? (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors. Can’t we all just get along? Study of diversity, disagreement, and democracy. Diversity covers individual differences, cultural differences, and human universals; groupism, factionalism, and identity politics; multiculturalism and one-world ethics. Disagreement includes moral, ideological, and diversity-political irreconcilable and irresolvable kinds of disagreement; groupthink and group polarization; herding and information cascades. Democracy stands for political mechanisms of information aggregation; political mechanisms to resolve differences, or to keep peace among people with irresolvable differences; emergence and spread of democracy, liberty, and rule of law. P/NI or letter grading.

115E. Humanist Practice and Civic Culture. (4) Seminar, three hours. Designed for courses 10, 115C. Designed for juniors/seniors. Exploration of connection between humanist practices (philosophy, sociology, science, republican self-fashioning) and promotion of civic ethics—culture that would promote flourishing civil society. How has humanism informed our Western understanding of republicanism and civic responsibility? What aspects of our humanist heritage maintain relevance for world that many describe as posthumanist? What form of civic culture is most appropriate for North American citizens in 21st century? P/NI or letter grading.

116A. Marxism. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Critical analysis of origins, nature, and development of Marxist political theory. P/NP or letter grading.

116B. Continental Political Thought. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Study of important text in continental political theory, including relationship between politics and reason, skepticism, and political freedom. P/NP or letter grading.

117. Jurisprudence. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Development of law and legal systems. Examination of influential legal concepts; contributions and influence of modern schools of legal philosophy in relation to law and government. Letter grading.

118. Laws of War and Peace from Conquest of America to Declaration of Human Rights (1948). (4) Lecture, three hours; discussion, one hour (when scheduled). Enforced requisite: course 10. Designed for juniors/seniors. Examination of theories of international relations and international law, with special emphasis on warfare, from conquest of America to end of World War II. P/NI or letter grading.

119. Special Studies in Political Theory. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Intensive examination of one or more special problems appropriate to political theory. Sections offered on regular basis, with topics announced in preceding term. May be repeated for credit with topic change. P/NI or letter grading.

M119A. Modern Receptions of Ancient Political Thought. (4) Same as Classics M124A. Lecture, three hours. Designed for juniors/seniors. Study of how Western culture has conceived and reinterpreted political thought of ancient Greeks and Romans. Topics include reception of important figures of modern modern re-ception of classical antiquity. P/NI or letter grading.

Field II: International Relations

120A. Foreign Relations of U.S. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of factors and forces entering into formation and implementation of American foreign policy, with special emphasis on contemporary issues. P/NP or letter grading.

120B. World Politics and U.S. Foreign Policy after September 11. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Video lectures by leading scholars as well as live lectures and discussion on complex policy problems such as terrorism, nuclear proliferation, and Arab-Israeli conflict. P/NI or letter grading.
Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Study of problems of international system seen as community capable of cooperation and development. P/NP or letter grading.

M122B. Global Environment and World Politics, (4) (Same as Environment M161.) Lecture, three or four hours; discussion, one hour (when scheduled). Recommended requisite: course 20. Politics and policy of major global environmental issues such as climate change, integrating law, policy, and political science perspectives. P/NP or letter grading.

122C. Global Catastrophic Risk: Clash of Science, Politics, and Ethics (6) Lecture, three hours; discussion, one hour. Designed for juniors/seniors. Global catastrophic risks pose challenge to modern civilization because of their superhuman extension in space, time, and knowledge realm. Their reach is global; their impact is personal and immediate. The risks are complex. Human interests and outlooks are local, regional, and national as well as egoistical, particularistic, and tribal. Overcoming spell international conflicts among living—young, middle-aged, and old—and between ancestors and descendants. Deeply and vary specializes skilled struggle to communicate across scientific disciplines, across nat-ural and human sciences, and across pure and applied sciences—only to hit brick wall in their communications with lay public, which is variously represented by elected political representatives, organized interest groups, and fluid social movements. Study of ensuing clash of science. P/NP or letter grading.

123A. International Law, (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Study of nature and place of international law in conduct of international relations. P/NP or letter grading.

123B. International Organizations, (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Overview of both theory and functioning of international organizations in promoting international cooperation. Required readings include both statistical and formal models. P/NP or letter grading.

124A. International Political Economy, (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Study of political aspects of interna-tional economic issues. P/NP or letter grading.

124B. Politics of Latin American Economic Develop-ment, (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/se-niors. Interaction of international and domestic factors in political and economic evolution of Latin America. P/NP or letter grading.

125A. Arms Control and International Security, (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Arms control in context of international security in nuclear age. Nuclear arms race; relationship between deter-rence doctrines and nuclear war; roles of technology and ideology; nuclear proliferation; outer space. P/NP or letter grading.

126. Peace and War, (4) Lecture, three or four hours; discussion, one hour (when scheduled). Required: course 20. Emphasis on historical and contemporary theory and research on causes of war and conditions of peace.

127A. Atlantic Area in World Politics: Western Eu-rop.e, (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. External relations of United Kingdom, West Germany, France, Italy, and other European members of NATO, in regard to European security in context of Atlantic Alli-ance. P/NP or letter grading.


128B. International Relations of Post-Communist Russia, (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of foreign policy of post-Communist Russia, with special em-phasis on Russia’s relations with NATO, the former communist states of Eastern Europe, China, and the Commonwealth of Independent States.

129. Diplomacy and War, (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requi-site: course 20 or 137A. Designed for juniors/seniors. Analysis of role of diplomacy in great power politics; history of diplomatic institutions, advantages of public and private diplomacy, bilateral and multilateral settings, and theory and practice of deterrence and coercion. Use of game theoretic reasoning and histor-i cal analysis. Prior exposure to both useful but not required. P/NP or letter grading.

132A-M132B. International Relations of Middle East, (4–4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Requisite: course 40. Designed for juniors/seniors. Study of those factors which affect character of the legislative process and capacity of representative institutions to govern in contemporary society. 140B. The Presidency. Study of various policies of one hour (when scheduled), em-phasizing impact of the bureaucracy, congress, public opinion, interest groups, and party system on the presidency and national policy-making. 140C. Su-preme Court. Introduction to American constitutional law and role of Supreme Court as interpreter of the U.S. Constitution. Reading of Supreme Court cases as well as various historical and current com-memoratives.

M141A. Electoral Politics: Political Psychology, (4) (Same as Psychology M138) Lecture, three or four hours; discussion, one hour (when scheduled). Requi-site: course 40. Designed for juniors/seniors. Exami nation of political behavior from the perspective of per-sonality and politics, racial conflict, and psychological analysis of public opinion on these issues. P/NP or letter grading.

141B. Electoral Politics: Public Opinion and Voting Behavior, (4) Lecture, three or four hours; discussion, one hour (when scheduled). Required: course 40. De-signed for juniors/seniors. Study of character and for-mation of political attitudes and public opinion. Role of public opinion in elections and its relationship to atti-tudes to vote decision, and influence of public opinion on public policy formulation. P/NP or letter grading.

141C. Electoral Politics: Political Behavior Analysis, (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisites: courses 6, 40, 141B. Designed for juniors/seniors. Advanced course in use of quantitative methods in study of political behavior, especially in relation to voting behavior, socialization, participation, and techniques of political action. Students conduct computer-aided analyses of issues and problems treated in course 141B and similar courses. P/NP or letter grading.

141E. Electoral Politics: Elections, Media, and Strat-egy, (4) Lecture, three or four hours; discussion, one hour (when scheduled). Required: course 30. De-signed for juniors/seniors. Analysis of elections and media, including game-theoretic analysis. Downs spa-tial model of elections, valence characteristics in elec-tions, campaign finance, endogeneity problems in so-cial sciences, liberal bias in media, industrial organiza-tions of news industry, and effects of media on voter decisions. May be applied toward Field III or V, P/NP or letter grading.

142A. Political Parties and Interest Groups, (4) Lecture, three or four hours; discussion, one hour (when scheduled). Required: course 30. Designed for juniors/seniors. Organization and activities of political parties in the U.S. Attention to historical development of the parties, nature of party change, campaign func-tions and electoral role of both parties, party membership problems and party activists, political finance, and policy formulation practices. P/NP or letter grading.

M142D. Understanding Public Issue Life Cycle, (4) (Same as Public Policy M127.) Lecture, three or four hours; discussion, one hour (when scheduled). Recommended preparation: courses 10, 40, and one course from Economics 1, 2, 5, 11, or 101. Examina-tion of how public issue life cycle is shaped by (1) eco-nomic and political incentives of various actors—busi-ness, news media, mass public, organized interests, Congress, the president, regulatory agencies, and courts and (2) ideology, collective biases, and ethical reasoning. P/NP or letter grading.


143B. Metropolitan Governance, (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of how po-llitical, social, economic, and cultural factors influence metropolitan governance in both U.S. central cities and suburban areas. Study of the role of the federal government in metropolitan governance through classic and contem-porary readings on political power, political economy

Field III: American Politics

140A-140B-140C. National Institutions, (4–4–4) Lecture, three or four hours; discussion, one hour (when scheduled). Required: course 40. Designed for jun-iors/seniors. 140A. Congress. Study of those factors which affect character of the legislative process and capacity of representative institutions to govern in contemporary society.
of cities, and racial/ethnic segregation, as well as political incorporation and racial/ethnic coalitions. P/NP or letter grading.

143C. Politics of American Suburbanization. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of political, social, and economic evolution of American suburbs, particularly in post-WWII era. Dominant themes focus primarily on historical patterns and implications of U.S. racial/ethnic inclusion and exclusion; class conflict and gender roles; classic and contemporary theories of metropolitan governance; and civic/political implications of American suburbanization. Relevant topics and case studies include housing, schools, and taxes; immigrant and ethnic minority suburbanization; suburban sprawl and uneven growth; suburban decline and revitalization. P/NP or letter grading.

145A. Public Law and Judicial Process: Anglo-American Legal System. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. Evolution of English common law courts and their legal system, with emphasis on development of basic concepts of law which were received from that system in U.S. and remain relevant today. P/NP or letter grading.


145C. Public Law and Judicial Process: Constitutional Law—Civil Liberties. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. Protection of civil and political rights and liberties under constitutional law. P/NP or letter grading.

145D. Public Law and Judicial Process: Judicial Overview. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. Legal controls of administration action. Substantive and procedural limits on administrative discretion imposed by legislation, executive and judicial agencies, and sources of legal powers of administrative bodies within these limits. P/NP or letter grading.


146D. Organization Theory, Public Policy, and Administration: Theories of Organization and Decision Making. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. Examination of theoretical frameworks for studying public and private bureaucracies, with emphasis on organizational theories, values, behavioral patterns, and concepts of organization. P/NP or letter grading.

146E. Organization Theory, Public Policy, and Administration: Experimental Development and Implementation. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. Investigation of complex process of policy development and implementation in U.S., including roles of federal, state, and local agencies as well as private organizations. Subsections offered on particular policy areas, with topics announced in preceding term. P/NP or letter grading.

147A. American Political Development: Overview. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. Introduction to historical development of American politics and ideas and institutions that defined American domestic processes during core 50. Development of political parties, two-party system, government, and political culture. P/NP or letter grading.

147B. American Political Development: Institutional Development. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. Examination of one period in American political history. Critical features fostering stability and change. Discussion of contributions to each period. May be repeated for credit with topic change. P/NP or letter grading.

147C. American Political Development: Institutional Development. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. Investigation of core 50. Designed for juniors/seniors. Evolution of English common law courts and their legal system, with emphasis on development of basic concepts of law which were received from that system in U.S. and remain relevant today. P/NP or letter grading.

147D. American Political Development: Period Overview. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. Constitutional questions concerning separation of powers, federalism, and relationships between government and property. P/NP or letter grading.

147E. American Political Development: Period Overview. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. Examination of one period in American political history. Critical features fostering stability and change. Discussion of contributions to each period. May be repeated for credit with topic change. P/NP or letter grading.

Field IV: Comparative Politics

150. Political Violence. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of one or several different uses of violence in revolutionary process: demonstrations, riots, coup d’etat, assassinations, and terrorism. P/NP or letter grading.

151A. African Politics: Government and Politics of Africa. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Historical and contemporary political processes in African countries, with special attention to state/society relations, interaction of politics and economic development, political institutions, and conflict and conflict resolution. Letter grading.

151B. African Politics: Political Economy of Africa. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of economic and political factors in African development. Special attention to political basis of inappropriate economic policy during early post-independence period and change toward a more appropriate economic strategy in recent times. Letter grading.

151C. African Politics: Special Topics in African Politics. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Consult with instructor to design topics to be offered in a specific term. Letter grading.

M152. Political Economy of Climate Change. (4) Same as International Development Studies M150. Lecture, three hours; discussion, one hour (when scheduled). Examination of ways in which governments at international, national, and regional levels are addressing—or not addressing—extraordinary challenge of climate change. Use of combination of readings, lectures, and discussions to better understand causes, consequences, and policies to address most important political problem of our time—not just in U.S., but in other major countries as well. Concentration on challenges of mitigating, rather than adapting to, climate change, and concentration on the use of agriculture, forestry, and land use. Letter grading.

153A. Comparative Government and Politics of Western Europe: West European Government and Politics. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Comparison of constitutional and political structure of Western European states, with particular attention to contemporary problems. P/NP or letter grading.

154A-154B. Government and Politics in Latin America. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Comparative study of governmental and political development, cooperation, and practices. P/NP or letter grading.

154A. States of Middle America. Enforced requisite: course 50 or 50R. 154B. States of South America.

156A. Government and Politics of Post-Communist States: Russia. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Intensive study of institutions and political development in Russia, with special attention to liberalization of 1980s and development of democracy. P/NP or letter grading.

157. Government and Politics in the Middle East. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Comparative study of government and politics of Arab states, Turkey, Israel, and Iran. P/NP or letter grading.

158. Southeast Asian Politics. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 50. Designed for juniors/seniors. Survey of political environment in major Southeast Asian states. Use of comparative analysis to address major problems confronting region, including democratization, economic growth, drug trade, deforestation, and security threats. Letter grading.

159A. Government and Politics of China: Chinese Revolution and Age of Mao Zedong. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of modern Chinese politics from decline of Manchu dynasty and rise of revolutionary nationalism to death of Mao Zedong, with emphasis on socioeconomic foundations and political dynamics of revolution in modern China.

159B. Government and Politics of China: in Age of Reform. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of political and ideological transformation in post-Mao era. Assessment of impact of changing socioeconomic conditions on revolutionary policies and programs of Chinese Communist Party and the role of Deng Xiaoping.。

160. Government and Politics of Japan. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of political environment in Japan. Focus on domestic political forces and problems.

163A. Discurso before Democracy. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Regularities in language used to talk about politics across states preceding emergence of democracy in Europe, the United States, and Latin America. Focus on language used to describe collective action in oppression, contribution of shared identities to organizing collective action, role of discourse in cueing awareness of shared identity, evidence across time and space of association between discourse and distancing political rule (monarchy, exclusive republics, dictatorship). Letter grading.

163B. Colonialism, Discourse, and Democracy. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Transformation of language used to talk or write about politics during era of European colonialism and resulting shifts in identity ensuing in political change. Theories of democracy, dynamics of colonial encounter between Europeans and peoples of different cultures, and changes in political discourse.
living outside Europe, problems of collective action in tyranny and democracy, consequences of sharing identity for collective action, transformation of discourse in East and West, and ensuing enfranchisement in Europe, North America, and Southwest Pacific, spread of enfranchisement following discursive transformations in Russia and in selected states emerging in formerly colonized territories. Letter grading.

164A. Roots of Democracy. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of development of democracy around world from its beginnings in ancient Greece to present day. Techniques of comparative politics used to evaluate major arguments about why different countries become democratic at different times and why some remain authoritarian. P/NP or letter grading.

164B. Fascism and Right-Wing Extremism: Historical and Present Day. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Historical rise of Fascism in Germany, Italy, Japan, and Eastern Europe; its social and political ideology. Focus on Germany, including Nazi economic policy (Tööse, Wages of Destruction). Do today’s xenophobic movements in Europe resemble earlier Fascism in ideology and social base? P/NP or letter grading.

165. Islam and Politics. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Comparison of major political institutions such as clericalism and secularism versus parliamentarism, unclericalism versus bicameralism, two-party versus multiparty systems, federal versus unitary systems, plurality versus proportional electoral systems, etc. Method of analysis is rational choice (political actors are assumed to optimize their results given institutional constraints and action of other actors). Result is that institutions affect political outcomes in systematic ways. P/NP or letter grading.

M167C. Political Economy of Development. (4) (Same as International Development Studies M120.) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. An examination of major theories such as dependency, modernization versus postmodernization, capitalism and socialism. How do political, economic, and social factors affect political outcomes? How do problems of poverty and wealth distribution affect political stability? P/NP or letter grading.

170A. Studies in Statistical Analysis of Political Data. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Enforced requisite: course 6 or 6R. Designed for juniors/seniors. Use of statistical methods to analyze the relationship of various fields in political science and use of quantitative evidence in construction of convincing and truthful arguments related to world of politics. Consult Schedule of Classes for topics to be offered in specific term. P/NP or letter grading.

171A. Applied Formal Models: Collective Action and Social Movements. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 30. Designed for juniors/seniors. How do social and political movements convince people to participate? Consideration of various theoretical perspectives, including game-theoretical, social network, structural, and identity approaches, illustrated by case studies. P/NP or letter grading.

171B. Collective Choice and Majority Rule. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 30. Designed for juniors/seniors. How do political decisions get made? How do political outcomes arise from system of voting and casting votes affect political decisions? When can voting rules be manipulated by leaders and voters? Examples from legislative, electoral, and judicial politics. P/NP or letter grading.

171C. Legislative Strategy. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 30. Designed for juniors/seniors. How do political leaders get what they want from legislatures? Relationships among power centers, the influence of interest groups, and direct appeals to the public. P/NP or letter grading.

171D. Negotiation. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 30. Designed for juniors/seniors. Study of negotiation and bargaining in different contexts. Experimental exercises with emphasis on various aspects of negotiation, including negotiation tactics, negotiation strategies, and role of agents. P/NP or letter grading.

172. Strategy and Conflict. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Enforced requisite: course 30. Designed for juniors/seniors. Intermediate topics in game theory applied to political problems, with special attention to strategic consequences of incomplete information and information asymmetries. P/NP or letter grading.

179. Special Topics in Methods and Models. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 30. Designed for juniors/seniors. Intensive study of one or more special problems related to methods and models in political science. Consult Schedule of Classes for topics announced in preceding term. May be repeated for credit with topic change. P/NP or letter grading.

Field VI: Race and Ethnic Politics

M180A. African American Political Thought. (4) (Same as African American Studies M114C.) Lecture, three or four hours; discussion, one hour (when scheduled). Enforced requisite: course 6 or 6R or 30. Designed for African Americans. Debates and conflicts in black political thought, historical context of African American social movements, and relationship between black political thought and major trends in Western thought. P/NP or letter grading.

181A. Politics of Latino Communities. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Preparation: one 140-level course or one upper division course in race or ethnicity from historical, psychological, or sociological perspective. Requisite: course 40. Designed for juniors/seniors. Focus on understanding relationships of power and interaction between institutional contexts of race in economic, political, and cultural conditions of Latino life in the United States. P/NP or letter grading.

M181B. U.S. Latino Politics. (5) (Same as Chicana/o and Central American Studies M155B.) Lecture, four hours; discussion, one hour (when scheduled). Examination of historical and contemporary politics in U.S. political system. Topics include historical analysis of Latino immigration and migration; civil rights movements; increases in citizenship, registration, and voting in 1960s and 1990s; new wave of immigrationattitudes in California, Texas, and other Southwest states. Role of Latinos in U.S. elections. P/NP or letter grading.

182. Ethnic Politics: African American Politics. (4) (Same as African American Studies M1414.) Lecture, three or four hours; discussion, one hour (when scheduled). Preparation: one 140-level course or one upper division course in race or ethnicity from historical, psychological, or sociological perspective. Requisite: course 40. Designed for juniors/seniors. Emphasis on dynamics of minority group politics in U.S., touching on conditions facing racial and ethnic groups, with black Americans being primary case for analysis. Three primary objectives: (1) to provide descriptive information about social, political, and economic conditions of black community, (2) to analyze important political issues facing black Americans, (3) to sharpen students’ analytical skills. P/NP or letter grading.

M183. Experiments in Racial and Ethnic Politics. (4) (Same as Psychology M136C.) Lecture, three hours; laboratory, one hour. Research practice consisting of designing, analyzing, and reporting effective research results. Topics include studying people’s political attitudes, beliefs, and behaviors through carefully-designed experiments. P/NP or letter grading.

M184A. Black Experience in Latin America and Caribbean I (4) (Same as African American Studies M154D.) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Cultural, history, politics, and identity of African Americans in Caribbean, Latin America, and Central America. Exploration of issues of identity in context of Afro/Latino migration to U.S. P/NP or letter grading.

M184B. Black Experience in Latin America and Caribbean II. (4) (Same as African American Studies M154D.) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of issues regarding race and ethnicity in Latin America, with emphasis on comparisons to U.S. and within Latin America, with focus on African and indigenous origins, with emphasis on former. P/NP or letter grading.

186. Special Studies in Race, Ethnicity, and Politics. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Enforced requisite: course 30. Designed for juniors/seniors. Intensive study of one or more special problems related to race, ethnicity, and politics in political science. Sections offered on regular basis, with topics announced in preceding term. May be repeated for credit with topic change. P/NP or letter grading.

Special Studies

188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SB. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: course 188SA. Designed for juniors/seniors. Individual study in regularly scheduled meetings with faculty mentor to finalize course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SC. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: course 188SB. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to finalize course syllabus.
ulty mentor while facilitating USIE 88S course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limit: eight. Directed and supervised by one supervising faculty member. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as an upper-division lecture course. Individual study with lecturer, instructor or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

190. Research Colloquium in Political Science. (1) Seminar, one hour. Designed to bring together students enrolled in seminar. Seminar could be supervised by one or more faculty to discuss their own work or related work in discipline. Led by one supervising faculty member. May be repeated for credit. P/NP or letter grading.

190H. Honors Research Colloquium in Political Science. (1) Seminar, one hour. Designed to bring together students writing departmental honors theses in seminar format. Seminar could be supervised by one or more faculty members to discuss their thesis work in progress. Led by one supervising faculty member. P/NP grading.

191A-191F. Variable Topics Research Seminars for Majors. (4 each) Seminar, three hours. Preparation: two upper-division courses in field in which seminar is offered. Limited to junior/senior Political Science majors with 3.25 grade-point average in upper-division political science courses. Consult Schedule of Classes for topics to be offered in specific term. Reading, discussion, and development of culminating project. May be applied toward distribution or concentration requirement. May be repeated for credit. P/NP or letter grading. 191A. Political Theory; 191B. International Relations; 191C. Politics; 191D. Comparative Government; 191E. Methods and Models; 191F. Race, Ethnicity, and Politics.

191DC. CAPPP Washington, DC, Research Seminars. (8) (Same as Communication M191DC, History M191DC, Public Affairs M191DC, and Sociology M191DC) Seminar, three hours. Limited to CAPPP Program students. Designed to focus on development and execution of original empirical research based on experiences from Washington, DC-based field placements. Study of variety of qualitative methods. Opportunity for discussion and comparison to quantitative analysis. Examination of features of solid and significant research; intensive writing. Letter grading.

191H. Research Design Seminar for Honors Thesis. (4) Seminar, four hours. Preparation: one course in 191 series, 3.5 grade-point average in upper-division political science courses, eligibility for Letters and Science honors. Required of all students who wish to write honors thesis. Students define their research topic, select suitable research method, determine appropriate sources of information, prepare research proposal, find thesis director, begin their research, and submit progress reports or preliminary drafts. Class sessions emphasize critical and constructive discussions of research design and methods, and problem-solving research, as well as general consideration of political science research topics and methods of current or continuing interest. May be repeated for credit. Letter grading.

193. Journal Club Seminars: Political Science. (1) Seminar, two hours. Limited to undergraduate students. Discussion of readings selected from current literature of field. Consult Schedule of Classes for topics of discussion in specific term. May be repeated for credit. P/NP grading.

194. Research Group Seminars: Political Science. (2) Seminar, three hours. Designed for undergraduate students who are part of research group. Discussion of research methods and current literature in field of research of faculty members or students. May be repeated for credit. P/NP grading.

M194DC. Quarter in Washington, DC, Research Seminar. (4) (Same as History M194DC and Sociology M194DC) Seminar, four hours. Preparation: two upper-division courses in field in which seminar is offered. Seminar could be supervised by one supervising faculty member. May be repeated for credit. P/NP grading.

M195DC. Internships in Political Science. (4) (Same as History M195DC, History M195DC, Public Affairs M195DC, and Sociology M195DC) Tutorial, four hours. Preparation: one course in 191 series. Seminar setting with one or more faculty members to discuss their own work or related work in discipline. Seminar could be supervised by one or more faculty members to discuss their thesis work in progress. Led by one supervising faculty member. P/NP or letter grading.

195CE. Community and Corporate Internships in Political Science. (4) Tutorial, to be arranged; field work, eight to 10 hours. Limited to juniors/seniors. Internship in corporate, governmental, or nonprofit setting coordinated through Center for Community Engagement. May be repeated for credit with consent of Center for Community Engagement. No more than 8 units may be applied toward major; units applied must be taken for letter grade. May not be applied toward concentration or distribution requirement. Individual contract with supervising faculty member required. P/NP or letter grading.

195Q. Quarter in Washington, DC, Internships. (4) (Same as Community Engagement and Social Change M195/QC, History M195/QC, Public Affairs M195/QC, and Sociology M195/QC) Tutorial, four hours. Preparation: one course in 191 series. Seminar setting with one or more faculty members to discuss their own work or related work in discipline. Seminar could be supervised by one supervising faculty member. May be repeated for credit with consent of Center for Community Engagement. No more than 8 units may be applied toward major; units applied must be taken for letter grade. May not be applied toward concentration or distribution requirement. Individual contract with supervising faculty member required. P/NP or letter grading.

198. Honors Research in Political Science. (1 to 4) Tutorial, two hours. Requisite: course 191H. Limited to juniors/seniors. Individual contract with supervising faculty member. May be repeated for credit. P/NP or letter grading.

199. Directed Research in Political Science. (2 to 8) Tutorial, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project project required. May be repeated for maximum of 16 units. Individual contract required. P/NP or letter grading.

199H. Honors Research Seminar. (1 to 4) Tutorial, two hours. Requisite: course 191H. Limited to juniors/seniors. Individual contract with supervising faculty member. May be repeated for credit. P/NP or letter grading.

199Q. Quarter in Washington, DC, Internships. (4) (Same as Community Engagement and Social Change M199/QC, History M199/QC, Public Affairs M199/QC, and Sociology M199/QC) Tutorial, four hours. Preparation: one course in 191 series. Seminar setting with one or more faculty members to discuss their own work or related work in discipline. Seminar could be supervised by one supervising faculty member. May be repeated for credit. Individual contract required. Letter grading.

199D. Directed Research in Political Science. (2 to 8) Tutorial, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project project required. May be repeated for maximum of 16 units. Individual contract required. P/NP or letter grading.

Graduate Courses

Formal Theory and Quantitative Methods

200A. Probability and Inference for Social Science. (4) Lecture, three hours; discussion, one hour; field work, eight hours. Basic topics in probability, the mathematical framework developed to help us think systematically and logically in face of uncertainty. Letter grading.

200B. Regression Analysis for Social Science. (4) Lecture, three hours; discussion, one hour; field work, eight hours. Requisite: course 200A. Preparation: prior exposure to coding in R. Introduction to regression design and regression analysis. Basic tools of statistical inference and application to practice of regression analysis. Emphasis on relationship of these statistical tools for drawing causal inferences; prediction methods; conceptual and descriptive also covered. Focus on principles of statistical inference, difference between design-based inference and model-based inference, identification versus estimation, building blocks of causal inference, characterization of regression model, diagnostics and extensions of regression model, threats to validity of our estimates. Students become comfortable coding in statistical programming language R. S/U or letter grading.

200C. Causal Inference for Social Science. (4) Lecture, three hours; discussion, one hour; field work, eight hours. Requisites: courses 200A, 200B. Preparation: familiarity with basic statistics and inferential statistics, multivariate calculus, basic linear/matrix algebra. Clarification of conditions under which estimates made using non-experimental data can be given causal interpretation, preposing and modeling, maximizing credibility of causal claims made from non-experimental evidence. Designs and methods, including experiments, matching, regression, panel methods, difference-in-difference control methods, instrumental variable estimation, regression discontinuity designs, and sensitivity analyses. Reinforcement of some basic skills from probability and statistics. S/U or letter grading.

200D. Maximum Likelihood for Social Science. (4) Seminar, three hours; field work, eight hours. Introduction to theory and practice of maximum likelihood analysis in political science, including discrete choice models, count data models, event history models. Lectures combine traditional formal mathematical derivations of various estimators and their properties with Monte Carlo simulations and discussion of applications in practice. S/U or letter grading.

200E. Experimental Design for Social Science. (4) Seminar, three hours; field work, eight hours. Preparation: familiarity with statistics of causal inference at least to the level of course 200C. Open to students: course 200C. Individual contract with supervising faculty member. May be repeated for credit. S/U or letter grading.

200F. Advanced Statistical Topics for Social Science. (4) Seminar, three hours; field work, eight hours. Preparation: courses 200A through 200E. Topics vary according to student interests. May be repeated for credit. S/U or letter grading.

200X. Data Analysis Workshop. (4) Seminar, three hours. Enforced requisite: course 200C. Not open for credit to students with credit for course 200Y. Practice in applying statistical techniques to political science data. S/U or letter grading.

200Y-200Z. Data Analysis Workshops. (2-2) Seminar, two hours. Enforced requisite: course 200C. Course 200Y is enforced requisite to 200Z. Open to students: course 200C. Not open for credit to students with credit for course 200X. Practice in applying statistical techniques to political science data. S/U or letter grading.

201A. Introduction to Formal Political Analysis. (4) Seminar, three hours. Survey of major theoretical and computational tools for enhancing literacy and provide analytical tools without presupposing mathematical background. Model building, collective goods, unanimity and the social contract, voting rules, paradoxes and impossibility theorems, stability, individual liberty and decentralization, strategic manipulation representation, vote voting.

201B. Theory of Collective Choice. (4) Seminar, three hours. Preparation: recommended preparation for political science students: course 201A. Open to any student of politics, economics, philosophy, or mathematics with ability for deductive reasoning. Introduction to abstraction, collective choice models and other collective-choice processes. Axiomatic method applied to politics and political economy, concept of rationality, and agenda control, choice-set or solution concepts.


203A. Economic Theory and Methods for Political Science I. (4) Discussion, three hours. Preparation: knowledge of elementary calculus. Introduction to techniques of economic analysis and survey of major
topics in formal political economy. Investigation of models of regulation, trade protection, collective bargaining, and economic growth as time permits.

23B. Economic Theory and Methods for Political Science II (4) Discussion, three hours. Prerequisite: course 23A. Continuing survey of microeconomic techniques used in formal political science, with focus on market failures and on modeling individual and collective choice in normative situations. Topics include utility, public goods and allocation mechanisms, collective action, spatial models, structure-induced equilibrium, and information asymmetries.

20A. Game Theory in Politics I, (4) Seminar, three hours. Surveys research in political science with emphasis on utilizing mathematical models to understand political and economic phenomena. Applications concern political participation, public goods, legislatures, industrial regulation, bureaucracies, interest groups, and party competition. Designed to help students become informed consumers of game-theoretical literature in political science. S/U or letter grading.

20B. Game Theory in Politics II, (4) Seminar, three hours; fieldwork, eight hours. Prerequisite: course 20A. Intermediate game theory course. Topics include games of incomplete information, cheap talk games, and bargaining theory. Applications concern political participation, public goods, legislatures, bureaucracies, conflict, and communication. Designed to help students use game theory in their research. S/U or letter grading.

20C. Game Theory in Politics III, (4) Seminar, three hours; fieldwork, eight hours. Prerequisites: courses 20A, 20B. Advanced game theory course, with emphasis on new and/or advanced techniques. Topics include tugs of war games, stochastic games, and mechanism design. Applications concern bureaucracies, conflict mediation, and political transitions. Designed to help students use advanced game theory in their research. S/U or letter grading.

M208B. Topics in Applied Game Theory, (4) Seminar, three hours; tutorial meetings, to be arranged. Principal phases of political development and problems in Western European politics. S/U or letter grading.

M210A. Seminar: Game Theory. (4) Seminar, three hours; tutorial meetings, to be arranged. Principal phases of political development and problems in the Middle East. S/U or letter grading.

210B. Political Theory Field Seminar 1, 2, 3–4 Seminar, three hours; field work, eight hours; S/U or letter grading. Designed to help students writing or preparing to write dissertations. Reading and discussion of research in progress presented by UCLA faculty, visiting scholars, and advanced graduate students. Research paper of publishable length and quality required. S/U or letter grading.

210C. Political Theory Field Seminar 2, 3, 4 Seminar, three hours. Survey of contemporary research approaches and problems in South Asian politics. S/U or letter grading.

211. African Politics, (4) Seminar, three hours. Seminar, two hours. Preparation: successful completion of major field examinations. Workshops for students writing or preparing to write dissertations. Reading and discussion of research in progress presented by UCLA faculty, visiting scholars, and advanced graduate students. Research paper required. In Progress (213A, 213B) and letter (213C) grading.

215. Liberalism and Its Critics, (4) Seminar, three hours; discussion, one hour (when scheduled). Examination of works of one or more major contemporary liberal theorists (Rawls, Dworkin, Habermas, Nussbaum, etc.) in light of alternatives which have been proposed to the liberal position (communitarianism, post-structuralism, group rights theories, etc.). S/U or letter grading.

217. Selected Texts in Political Theory, (4) Seminar, three hours; discussion, one hour (when scheduled). Examination of works of one or more major contemporary liberal theorists (Rawls, Dworkin, Habermas, Nussbaum, etc.) in light of alternatives which have been proposed to the liberal position (communitarianism, post-structuralism, group rights theories, etc.). S/U or letter grading.


International Relations

220A. International Relations Core Seminar I, (4) Seminar, three hours. Introduction to international relations: main schools of thought, methods of analysis, and research styles. Letter grading.

220B. International Relations Core Seminar II, (4) Seminar, three hours. Further analysis of academic work in international relations and introduction to design of research project in this area. Letter grading.

220C. International Relations Research Seminar, (4) Seminar, three hours; tutorial meetings, to be arranged. Design, implementation, and presentation of research project in international relations within combination of seminar and tutorial settings. Letter grading.

222. Seminar: Strategic Interaction, (4) Seminar, three hours. A strategic model influences the other person’s choice by affecting his expectations of how we will behave. Discussion of theories of deterrence, coercive diplomacy, crisis management, war termination, and negotiation. Use of various theoretical approaches to explaining strategic interaction, including psychology, bargaining theory, and game theory.

223. Politics and Strategies of Modern War, (4) Seminar, three hours. Analysis of various national security problems in both their military/technical and political dimensions. Letter grading.

225. American Foreign Policy, (4) Discussion, three hours. Discussion of approaches used to explain foreign policy-making at individual, small group, bureaucratic, and national levels. Application to selected cases in American foreign policy. S/U or letter grading.


227. Foreign Policy Process, (4) Seminar, three hours. Prerequisite: courses 225, 220A, 220B, 220C. Political science and policy science approaches to national foreign policy process, with primary focus on formulation and implementation of American foreign policy. S/U or letter grading.

230. Contending Perspectives on International Political Economy, (4) Discussion, three hours. Survey of various theoretical approaches to international political economy.

231. International Political Economy I, (4) Seminar, three hours. Discussion of international trade and investment and domestic political economies of both industrialized and industrializing societies.

232. International Political Economy II, (4) Seminar, three hours. Survey of various theoretical approaches to international political economy, with special emphasis on new and/or advanced techniques used in formal political science, with focus on utilizing mathematical models to understand political and economic phenomena. Applications concern political participation, public goods, legislatures, industrial regulation, bureaucracies, interest groups, and party competition.
the specific techniques necessary to gain competence. The great variety of resources makes both the individualized choice and the acquisition of skills possible. Students interested in this program should contact the program office, 37-357 Semel Institute, 310-206-5110.

Psychiatry and Biobehavioral Sciences

Lower-Division Courses

19. Flat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

79. Applied Positive Neuroscience: Skills for Improving Productivity and Well-Being. (8) Lecture, three hours; discussion, one hour. Not open to students with credit for Community Health Sciences 179. Intrapersonal, interpersonal, and extrapersonal contributions to well-being, and how activity and chemistry of key neurotransmitter regions contribute to each, e.g., influences of mindfulness on prefrontal cortex activity, or how oxytocin system is altered by social interaction. Students learn to recognize relationships between cognitive, social, and emotional competence for healthy development, and how to apply it to their own lives. Through neuroscientific context, introduction to multidisciplinary perspectives on variety of topics that are widely considered significant developmental tasks for young adults, including emotion regulation, managing healthy relationships, enhancing productivity, and identity development. Letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to students enrolled in programs officially affiliated with UCLA, and students registered concurrently through UCLA Extension. Students who meet these requirements, but who are not affiliated with a departmental training program, may also meet required course requisites determined by specific educational programs.

Doctoral Internship Program in Clinical Psychology

The department offers a 12-month Doctoral Internship Program in Clinical Psychology. Students enrolled in clinical psychology doctoral programs at APA-approved universities are eligible to apply. Applications are accepted from September 1 through November 1. The primary goal of the internship is to provide a year of intensive exposure to a wide variety of clinical environments. The training is designed to maximize the personal growth of each intern. Interns are expected to develop proficiency in an area of focus as well as gain experience outside of their specific area of interest. At the beginning of the year, trainees design a program, both to supplement and complement previous development. Within the learning settings chosen by the trainee, every effort is made to teach
ical actions of phytocannabinoids (focusing on THC and CBD) and synthetic cannabinoids and evidence-based research of potential benefits and harms of different cannabinoid analogs, including a comparison of USIE facilitators. (1) Seminar, three hours. Limited to juniors/seniors. Individual contract with faculty mentor required. May not be repeated. Individual letter grading.

198SA. Advanced Honors Seminars. (1) Seminar, two hours. Limited to seniors. Designed as an extension to undergraduate coursework. Exploration of topics in greater depth through supplemental readings, papers, or other activities, and led by a course instructor. May be repeated for credit. Individual contract required. Individual letter grading.

198SC. Seminar on Special Topics (1) Seminar, three hours. Limited to graduate students. Individual contract with faculty mentor required. May not be repeated. Individual letter grading.

198HC. Honors Contracts. (1) Tutorial, two hours. Limited to students in Honors Program. Designated as an introduction to an upper-division course. Individual study with a course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for credit. Individual contract required. Honors content noted on transcript. P/NP or letter grading.

199. Directed Research in Psychiatry and Biobehavioral Sciences. (2 to 4) Tutorial, two hours. Limited to juniors/seniors. Supervised individual research or investigation under the guidance of a faculty mentor. Culminating projects may be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

M210. Editorial Board Apprenticeship. (2) Same as Health Policy and Management M249Q. Seminar, two hours. Designed for postdoctoral fellows and advanced PhD students. Participation in peer-review process for academic journal, Health Psychology, with consideration of interface between behavioral science, health, and medicine. Reading and discussion of submissions and assignments are geared toward suitability for full review. S/U or letter grading.

226A-226B. Childhood Psychopathology Research Seminars. (2 to 3) Seminar, 90 minutes. Current research in causes and behavioral manifestations of childhood psychopathology with emphasis on diagnosis and etiology of childhood disturbances.

M230. Communication of Science. (2) Same as Bio- mathematics M262L. Lecture, two hours; discussion, one hour. Presentation of various types of scientific and their purpose. Details of writing specific articles: methods, results, discussion. Writing of review article. Grant submissions: aims, background, results, design, Risks of amendments. Communication with lay public. S/U or letter grading.

M232. Causal Inference. (4) Same as Biostatistics M235S. Lecture, three hours; discussion, one hour. Requisites: Biostatistics 200C, 202B, or equivalent. Philosophy of causal inference, graph analysis, selection bias, confounding, ecological paradox, historical developmental potential outcomes, Rubin causal model, propensity scores, competing perspectives of causal and graphical/structural-equation models, experiments with noncompliance, principal stratification, decision making when causality is disputed, role of ethics in decision making. S/U or letter grading.

M234. Affective Disorders, (2 or 4) Same as Psychology M280. Seminar, two hours. General topics related to primary affective disorders (depression, manic depressive illness), including diagnosis, pharmacology, epidemiology, psychology, phenomenology, biology, and treatment. Students enrolled for 4 units are assigned a more intensive reading list and required to make a presentation or prepare a research paper. S/U or letter grading.

236A-236B-236C. Psychology Interns Seminars. (1–1–1) Seminar, 90 minutes. Discussion of invertebrate memory, vertebrates, and discussion of research literature, with focus on specific diseases such as HIV/AIDS, substance abuse, depression, and breast and prostate cancer. Discussion of myths and myths about healthcare of minority groups, especially as they relate to clinical and translational medicine and to advances in contemporary medicine such as targeted, gene therapy, and genomics. Letter grading.

254. Health and Mental Health Disparities from Psychosocial and Cultural Perspectives. (4) Seminar, three hours. Designed for graduate and medical students, resident physicians, and junior/seniors (with consent of instructor) interested in learning about gen- eral, cultural, and medical disparities. Survey course to introduce students to health disparities that exist for ethnic minorities and factors that may contribute to disproportionate prevalence rates. Review and discussion of research literature, with focus on specific diseases such as HIV/AIDS, substance abuse, depression, and breast and prostate cancer. Discussion of stereotypes and myths about healthcare of minority groups, especially as they relate to clinical and translational medicine and to advances in contemporary medicine such as targeted, gene therapy, and genomics. Letter grading.

M270. Neural Basis of Memory. (4) Same as Neuroscience M252T. Seminar, two hours; discussion, one hour. Requisites: Biostatistics 200C, 202B, or equivalent. Philosophy of causal inference, graph analysis, selection bias, confounding, ecological paradox, historical developmental potential outcomes, Rubin causal model, propensity scores, competing perspectives of causal and graphical/structural-equation models, experiments with noncompliance, principal stratification, decision making when causality is disputed, role of ethics in decision making. S/U or letter grading.

M272. Psychological Anthropology. (4) Same as Anthropology M237. Seminar, three hours. Designed for graduate students. Topics related to the cultural contexts of mental health, including cultural contexts as potential or contributing factors. S/U or letter grading.

M276. Survey Research Techniques in Psychocultural Studies. (4) Same as Psychology M236S. Seminar, three hours. Designed for graduate students. Techniques for conceptualizing, conducting, and analyzing survey data; instruction in qualitative strategies for enhancing survey research on psychocultural problems.

M240. Assessment and Treatment of African American Families. (3) Same as African American Studies M230. Seminar, three hours. Designed for graduate students. Course aims mental health professionals and trainees in evaluation and treatment of African American families in terms of their cultural milieu, historical background, and economic status. Didactic presentations by instructors and invited guests form basis for supervised evaluation and case management with African American children and families. Letter grading.


253. Seminar: Child Development. (1) Theories of development, systems of child development, and chronological ages of child development. Presentation of assigned readings by students plays major role in each session.

256. Basic Clinical Child Psychopathology. (1) Seminar, three hours. Overview of basic clinical aspects of child psychopathology. Readings provided for basis of discussion; topics include interviewing of parents and children, diagnosis, and related syndromes. S/U grading.

259. Legal and Ethical Issues with Vulnerable Populations. (3) Lecture, 90 minutes; laboratory, three and one half hours. Discussion of ethical issues involving children, developmentally disabled people, elderly people; philosophies, ethics, cultural codes, issues, and how to resolve them. Use of videotapes and discussion of cases.


M263. Clinical Pharmacology. (2) Same as Biostatistics M263 and Medicine M263. Lecture, two hours. Preparation: completion of professional health sciences degree (MD, DDS, DNP, or PhD). Overview of pharmacology of clinical drugs, especially as they relate to clinical and translational medicine and to advances in contemporary medicine such as targeted, gene therapy, and genomics. Letter grading.


1. Seminar, one hour. Topics to be centered around current research directions in psychoneuroimmunology (PNI), including social genomics, inflammation, and biological aging. Common molecular and immunological protocols used in PNI and current directions in PNI research, with emphasis on basic immunology and immunomodulatory mechanisms and role of behavioral and psychological factors on immune and cell-aging processes. S/U grading.
293. Professional Development: Presentations and Preparation for Academic Interviews. (2) Seminar, two hours. Exposure to range of professional development opportunities, including scientific presentation skills. Hands-on skills and practice in preparing and delivering presentations for various audiences, and preparing research and/or teaching statements for job applications. S/U grading.

294. Essentials in Clinical Investigation. (2) Lecture, two hours; discussion, two hours. Designed for graduate students. Introduction to initial steps in clinical research through preparation of research proposal. Small working groups develop grant proposal on specific topic. S/U grading.

295A. Substantive Issues in Substance Abuse I. (2) Seminar, two hours; discussion, one hour. Neurobiology and pharmacology of drug abuse, as well as evidence on pathways to and from drug dependence. S/U grading.

295B. Substantive Issues in Substance Abuse II. (2) Seminar, two hours; discussion, one hour. Drug use patterns and treatment issues in specific populations such as women, children, and families, and specific ethnic populations. Exploration of linkages between drug abuse, sexuality, and HIV/AIDS. S/U grading.

295C. Substantive Issues in Substance Abuse III. (2) Seminar, two hours; discussion, one hour. Theoretical perspectives on drug use and abuse as well as policy and ethical aspects of research. Research design and analysis issues pertinent to drug abuse research. S/U grading.

296. Research Group Seminar: Practicum. (2) Research group meeting, three hours. Designed for graduate students who are conducting research studies. Coverage of (1) publishing process—submitting manuscripts to journals, selecting appropriate journals, frequent reasons for journal rejection of manuscripts, and key points in journal publication; (2) overview of National Institutes of Health (NIH), including organization structure and mission, grant application process, funding mechanisms, and review process; (3) preparing writing grants for submission to NIH, including review of components of successful applications, criteria by which applications are judged, and what to emphasize in each section; (4) grant mechanisms specifically designed for new investigators; (5) human subjects section for grant applications and IRB issues, and (6) preparation of budgets (modular and detailed) and budget justification for NIH submissions. S/U grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or faculty. Teaching apprenticeship fund, active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

402. Journal Club. (1) Seminar, two hours; outside study, two hours. Presentation of participants’ current research. Critical review of recent articles on drug abuse. Training sessions included in areas in which fellows believe they have a recognized need. S/U grading.

403. Individual Case Supervision. (1 to 4) Preparation: submission of written proposal to be structured by instructor and student prior to enrollment; additional information and proposal forms available in Office of Education, 38-216 Semel Institute. One-to-one supervision of individual therapy cases, including analyses of patient data, supervision of ongoing treatment, informal didactic sessions on personality theory, and applications to patient management. S/U or letter grading.

404. Trauma and Sexual Abuse Research Seminar. (4) Seminar, three hours; discussion, one hour. Designed for graduate students working with and/or treating clients interested in learning about behavior therapy research. Introduction to DSM-V TR diagnostic criteria for posttraumatic stress disorder (PTSD), as well as biopsychosocial sequelae. Examination of context of being causative precursors of acute and chronic causes of PTSD. Evaluation of allostatic load, among other biologic variables, within context of physiological markers for PTSD. Review of current modes of treatment, including therapeutic and pharmacological interventions. Research methods particularly important for trauma research. S/U or letter grading.

407A-407B-407C. Clinical Hypnosis Seminars. (2–2–2) Two two-hour introductory oriented sequence with lecture, discussion, demonstration, practice, and assigned readings. Guest speakers with expertise in specific hypnotic applications and practices, and video presentations. Faculty members in healthcare professions as well as licensed healthcare providers from community (MCEP credit available) encouraged to enroll. For trainees in social work, psychiatry, completion of minimum of one year of supervised training in psychotherapy or behavior therapy required. S/U grading.

407A. Critical and historical context for hypnosis; development of technical competence in trance induction, deepening, memory, and re-altering; and gaining familiarity with trance experiences. 407B. Fundamentals of trance utilization, including diagnosis, creating, manipulating trance states, and facilitating exploratory trance experiences. 407C. Application of hypnotic interventions in specific clinical situations with specific populations.


431A-431B-431C. Pediatric Neuropsychology: Assessment, Diagnosis, and Treatment Planning. (1–1–1) Seminar, one hour. Presentation of didactics on development of normal and abnormal behavior, and core clinical syndromes. Discussion of assessment from previous two terms in case presentation format, supplemented with various guest speakers. 431A. Development of normal behaviors, including autism, Asperger’s, mental retardation, specific learning disabilities, and Attention Deficit/Hyperactivity Disorder. Current conceptualizations of these disorders used to form assessment techniques, including choice of instruments and interpretation of results. Practical issues in pediatric neuropsychology, including ethics, educational law, and inter-disciplinary interventions. 431B. Neurodevelopmental disorders, head injury, low birth weight, tumors, and epilepsy. 431C. Implementation of research from previous two terms in case presentation format, supplemented with various guest speakers.
plines, such as cognition and psychopharmacology, cognitive remediation, ecological validity of neuropsychological assessment, cognition and genomics, and psychometrics/test development. Focus in odd years on current models of human neuropsychology, such as models of working memory, neuropsychology of emotion and social cognition, models of implicit versus explicit learning, types of attention, and models of executive processes. S/U grading.

468. Translational Neuroscience of Drug Addiction. (1) Lecture, one hour. Designed for graduate students. Students need cross-disciplinary knowledge to understand drug abuse etiology, behavior, consequences, and treatment. Coverage of major topics in drug addiction by emphasizing use of animal models to understand human addiction and to disclose how findings derived from human studies can be used to expand development of animal models. S/U grading.

479. Genetics Clinic Presentation. (No credit) Weekly clinical teaching session on patients seen in preceding genetics clinic. In-depth discussion on genetics of each disorder.

480. Analysis of Human Chromosome Studies. (1) Chromosome karyotypes prepared in cytogentic laboratory during preceding week presented and discussed with reference to clinical findings. Teaching includes interpretation of abnormal karyotypes and technical aspects of routine and special chromosome stains.

482. Clinical Practicum in Childhood Anxiety and Related Disorders. (2) Clinic, two hours. Training in cognitive/behavioral assessment and treatment of children and adolescents with anxiety and related disorders. Didactic and experiential training, including direct patient care, clinical supervision, and participation in weekly team meetings. Letter grading.

485. Human Genetics Seminar. (No credit) Seminar, one hour. Preparation: introductory genetics course. Weekly lecture series intended for those interested in human genetics or in specific topic to be presented. Speakers are invited for their expertise or research in some special area related to human genetics and may be from UCLA or elsewhere. No grading.

M490. Educational Advocacy. (2) (Same as Law M431.) Clinic, two hours (12 weeks). How to provide educational advocacy based on IDEA, ADA, and Section 504 of Rehabilitation Act on behalf of children with learning disabilities, behavior disorders, and mental retardation. S/U or letter grading.

596P. Individual Studies in Psychiatry. (2 to 12) Tutorial, to be arranged. Preparation: submission of written proposal outlining course of study (to be structured by instructor and student at time of initial enrollment). Additional information and course proposal forms available in Office of Education, 38-216 Semel Institute. Directed individual research and study in psychiatry at graduate level. S/U or letter grading.

Faculty Roster
Professors
Howard S. Adelman, PhD
Robert F. Asarnow, PhD, in Residence (Della Martin Professor of Psychiatry)
Carrick E. Bearden, PhD, in Residence
Robert M. Bilder, PhD, in Residence (Michael E. Tennenbaum Family Endowed Professor of Creativity Research)
James W. Bisley, PhD (Ethel Scheibel Professor of Neuroscience)
Hugh T. Blair, PhD
Aaron P. Blaisdell, PhD
Susan Y. Bookheimer, PhD, in Residence (Joaquin M. Fuster Professor of Cognitive Neuroscience)
Julienne E. Bowler, PhD
Thomas N. Bradbury, PhD
Dean V. Buonomano, PhD
Li Cai, PhD
Alan D. Castel, PhD
Denise A. Chavira, PhD
Patricia Cheng, PhD
Bruce F. Chorpita, PhD
Michelle G. Craske, PhD (Kevin Love Fund Centennial Professor)
Naomi I. Eisenberger, PhD
Craig K. Enders, PhD
Christopher J. Evans, PhD, in Residence (Stefan Hatos Endowed Professor of Psychiatry and Biobehavioral Sciences)
Craig R. Fox, PhD (Harold Williams Professor of Management)
Andrew J. Fuligni, PhD, in Residence
Adriana Galván, PhD
Noah J. Goldstein, MA, PhD (Ho-Su Wu Professor of Management)
Patricia M. Greenfield, PhD
Martie G. Haselton, PhD
Hal E. Hershfield, PhD
Keith Holyoak, PhD
Yuen J. Huo, PhD
Michael R. Irwin, MD, in Residence (Norman Cousins Endowed Professor of Psychoneuroimmunology)
Alicia Izquierdo, PhD
Keri L. Johnson, PhD
Scott P. Johnson, PhD
Jaana H. Juvonen, PhD
Benjamin R. Karney, PhD
Philip Kelman, PhD
Barbara Knowlton, PhD
Anna S. Lau, PhD
Steve S. Lee, PhD
Matthew D. Lieberman, PhD
Zili Liu, PhD
Hongjing Lu, PhD
Vickie M. Mays, PhD
David J. Miklowitz, PhD, in Residence
Martin M. Monti, PhD
Keith H. Nuechterlein, PhD, in Residence
Efrén O. Pérez, PhD
Benjamin O. Redd, PhD
Lara A. Ray, PhD
Steven P. Reise, PhD
Dario L. Ringach, PhD
Theodore F. Robles, PhD
Catherine M. Sandhofer, PhD
Ladan Shams, PhD
Margaret J. Shih, PhD (Neil Jacoby Professor of Management)
Alcino J. Silva, PhD
Annette L. Stanton, PhD
James W. Stigler, PhD
A. Janet Tomiyama, PhD
Miguel M. Unzueta, PhD
Kate M. Wassum, PhD (Bernice Wenzel and Wendell Jeffrey Term Endowed Professor of Behavioral Neuroscience)
Patrick A. Wilson, PhD
Cindy M. Yee-Bradbury, PhD

Professors Emeriti
Paul R. Abramson, PhD
Bruce L. Baker, PhD
Jackson Beatty, PhD
Peter M. Bentler, PhD
Elizabeth L. Bjork, PhD
Robert A. Bjork, PhD
Janet B. Blacher, PhD
William E. Broen, Jr., PhD
Andrew Christensen, PhD
Christine A. Dunkel Schetter, PhD
Michael S. Fanselau, PhD (Staglin Family Professor Emeritus of Psychology)
Charles R. Gallistel, PhD
R. Edward Geiselman, PhD
Rochel Gelman, PhD
Gerald M. Goodman, PhD
Carlos V. Grijalva, PhD
Constance L. Hammen, PhD
Eric W. Holman, PhD
John P. Houston, PhD
Franklin B. Krasne, PhD
Steven R. Lopez, PhD
Donald G. MacKay, PhD
Albert Mehrabian, PhD
Gregory A. Miller, PhD
Hector F. Myers, PhD
Allen Parducci, PhD
L. Anne Peplau, PhD
Rena L. Repetti, PhD
Tara K. Scanlan, PhD
Stanley J. Schein, MD, PhD
David O. Sears, PhD
David Shapiro, PhD
John R. Weisz, PhD
Nancy J. Woolf, PhD

Associate Professors
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Jesse A. Harris, PhD
Katherine H. Karlsgodt, PhD
Ian M. Krajibich, PhD
Carolyn M. Parkinson, PhD (Bernice Wenzel and Wendell Jeffrey Term Endowed Professor of Cognitive Neuroscience)
Jesse A. Rissman, PhD
Jennifer A. Silvers, PhD (Bernice Wenzel and Wendell Jeffrey Term Endowed Professor of Behavioral Neuroscience)
Nanthia A. Suthana, PhD, in Residence

Assistant Professors
Avishek Adhikari, PhD

Psychology / 757
Three undergraduate majors are offered: a Bachelor of Arts (BA) in Psychology, a Bachelor of Science (BS) in Cognitive Science, and a BS in Psychobiology. While the majors overlap in certain fundamental and basic knowledge bases, they differ considerably in their focus (i.e., the extent to which certain areas of psychology and related disciplines are studied) and in terms of the different student interests and needs they satisfy. For nonmajors, the department offers many courses that provide students with new and valuable insights into the understanding of human behavior, including their own.

Honors Courses
Each year the department offers a selection of honors courses, designated with an H suffix. The courses provide close contact with faculty members, emphasize readings in the original literature, student reports, and small group discussions, and may include field or research experience. Contact the College of Letters and Science for information on requirements for College Honors.

Graduate Study
At the graduate level, the department offers training leading to the PhD degree with emphasis in the areas of behavioral neuroscience, clinical, cognitive, cognitive neuroscience, computational cognition, developmental, health, learning and behavior, social and affective neuroscience, and quantitative psychology. The graduate program is designed to prepare future psychologists for careers as scientific investigators, college and university teachers, and clinical scientists.

Fieldwork and Research Opportunities
Many research and fieldwork opportunities are open to students who wish to expand their knowledge and broaden their background in the field of psychology. These experiences can be enriching and help bring undergraduate students closer to understanding the importance of research and internships, including their applications in the everyday world. At least one of the following courses is recommended for students planning postgraduate study: Psychology 99, 185, 192, 194A through C194D, 195A, 195B, 196A, 196B, 199A, or 199B. Only 12 units from any combination of courses 185, 192, 194, 195, and 196 may be applied toward the undergraduate degree. Information about these courses and programs is available from the Undergraduate Advising Office.

The Psychology Research Opportunity Programs (PROPS) represent a vital effort to identify and mentor underrepresented minority and/or low-income students. The purpose of PROPS is to encourage such students to participate in research and pursue graduate studies leading to careers in academia. The recruitment and application process for PROPS takes place each fall quarter. Students selected to participate are awarded stipends for winter and spring quarters, during which time they do research under the mentorship of a psychology faculty member. In addition, students are required to attend weekly seminars covering such topics as graduate school, careers in academia, and research opportunities in various fields of psychology. Prior research experience is not required. This is an excellent opportunity for students to begin their research careers and acquire the needed experience to pursue advanced studies.

Infant Development Program
The Megan E. Daly Infant Development Program (IDP), established in May 1983, is located at the Fernald Center at 320 N. Charles E. Young Drive and has two primary functions: (1) to offer quality group care for infants and toddlers of the students, staff, and faculty of the Psychology Department and other UCLA departments, and (2) to serve as a teaching and research facility for the Psychology Department and the UCLA community. The program’s two classrooms each serve children from three months to three years old and accommodate both cross-sectional and longitudinal investigations of infants, toddlers, their families, and caregivers. In addition, the program serves as a primary internship site for students in the Applied Developmental Psychology (ADP) minor, enabling ADP students to acquire firsthand experience observing and caring for infants and toddlers in a professional group setting.

UCLA Psychology Clinic
The UCLA Psychology Clinic in the Department of Psychology is a major training center for students in the clinical psychology PhD program, one of the top-ranked programs in the country. It provides a broad range of psychological services to children and adults, including assessment and individual, couples, family, and group therapy. Clients cover the entire age range and represent diverse populations in the community.

Student therapists receive very close supervision and utilize research-based cutting-edge psychological interventions. Students and faculty members are also involved in a variety of research projects through the clinic.
Undergraduate Majors

Psychology BA

The Psychology major is the most general of the three majors and offers both broad and in-depth coverage of the fundamental and traditional areas of psychology. It provides students with a strong foundation for postgraduate education in psychology and can serve as excellent background to prepare them for further training in such fields as law, education, government and public policy, business, and many of the health-related professions. Its basic liberal-arts orientation also provides students with an excellent foundation for immediate postbaccalaureate careers in many areas, particularly ones in which an understanding of human behavior and its diversity of expression would be an asset.

The requirements described below represent the minimum requirements in satisfaction of the preparation and the major. Additional courses in psychology, statistics, and related sciences, as well as other types of research and fieldwork experiences, are highly recommended if students plan to pursue graduate work in psychology and related fields. Under special circumstances, graduate-level courses can be taken by undergraduate students, although such courses may not be applied toward degree requirements for the major. For additional information, contact the Undergraduate Advising Office.

Learning Outcomes

The Psychology major has the following learning outcomes:

- Demonstrated ability to design an experiment in a field of psychology
- Ability to formulate a hypothesis based on knowledge of current literature
- Demonstrated application of principles of control groups and appropriate methodology
- Demonstrated awareness of major research methods in chosen area of psychology
- Demonstrated ability to apply appropriate statistical methods in analyzing data
- Demonstrated ability to write up results of an experiment
- Ability to relate finding to current literature and interpret them in this context
- Ability to discuss results in front of a group of other students
- Ability to verbally communicate ideas motivating experiments
- Ability to clarify experiment to those not familiar with the methods and answer questions

Entry to the Major

Pre-major

Students need to file a petition in the Undergraduate Advising Office to declare the Psychology pre-major. Psychology pre-majors can petition to declare the Psychology major once they have (1) satisfied all the preparation for the major requirements and (2) are accepted into the major through a competitive application process (for students who entered UCLA as first years) or file a petition to declare the Psychology major (for students who entered UCLA as transfers).

First-Year Students

Students may declare the Psychology pre-major once they have established a 2.5 grade-point average in at least one preparation for the major course.

Students must petition to declare the Psychology major and can do so once they complete all seven preparation for the major courses and submit an application to enter the major by the end of the fall quarter of their third year at UCLA. Admission into the major is based on student academic performance in the preparation courses. Students who have a grade-point average of 2.9 or higher in the preparation coursework and have met all other Psychology pre-major requirements are guaranteed entry into the major after they submit the application by the above deadline. Students with a grade-point average between 2.5 and 2.89 in the preparation coursework enter a competitive application pool and are admitted only if there is space available in the major. Students with a grade-point average below 2.5 in the preparation coursework are not eligible to apply for admission to the major.

Transfer Students

Transfer applicants to the Psychology major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one biology course equivalent to Life Sciences 7A or 15 or Physiological Science 3, one general chemistry or general physics course, one philosophy course, one introduction to psychology course, and one course from statistics (recommended), finite mathematics, calculus, computer science theory, or computer programming in C++.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

After satisfying the preparation for the major requirements, students need to petition to enter the major at the Undergraduate Advising Office.

Policies

Students who repeat more than two preparation courses or any preparation course more than once are denied admission to the major.

Requirements

Preparation for the Major

Required: Life Sciences 7A or 15 or Physiological Science 3; Chemistry and Biochemistry 14A or 17 or 20A or Physics 1A or 5A or 10 or 11; one course from Program in Computing 10A, Statistics 10, or one term of calculus; one course from Philosophy 1, 2, 3, 4, 5, 6, 7, 8, 9, 21, 22, 22W, 23, 31; Psychology 10, 100A, 100B.

The Major

Required: (1) Five core courses, with at least two from each category and a fifth course from either category: (a) Psychology 110, 115 (or M117A, M117B, and M117C), 120A, 120B, and (b) 127A or 127B or 127C, 130 (or one course from 133A through 133I or 161), 135, 150; (2) one laboratory/fieldwork course from 101, 111, M116A, 116B, 121, 126, 131, 136A, 136B, M136C, 151, 186A through 186D; (3) four additional upper-division elective courses (16 units) in psychology.

Honors Program

Students work for one year (fall through spring quarters) with a Psychology Department faculty sponsor on a research project that is the basis of a formal honors thesis. During that year they also participate in a weekly seminar (Psychology 191AH, 191BH, 191CH) in which thesis projects are presented and discussed and other topics of interest are explored with invited faculty members and other guests. Other requirements may apply.

Policies

Preparation for the Major

Each of the courses must be taken for a letter grade (C or better in Psychology 10, 100A, and 100B, C– or better in the remaining courses). Students cannot take Psychology 100B until they have passed course 100A with a grade of C or better. Psychology 100A and 100B are only open to students who have declared the Psychology pre-major before the term in which they plan to enroll. It is recommended that students with no background in introductory statistics take Statistics 10 before enrolling in course 100A.

The Major

Students who complete Psychology M117A, M117B, M117C receive equivalent credit for course 115 and two upper-division psychology electives. All three courses must be completed to receive psychology elective credit.

Each upper-division course must be taken for a letter grade. A C– or better is required in each core course and in at least one laboratory/fieldwork course. Students must have a 2.0 grade-point average in all upper-division courses elected to satisfy major requirements.

Honors Program

Majors intending to continue study at the graduate level are encouraged to apply for the departmental honors program. Contact the Undergraduate Advising Office during spring quarter for more information and application forms. Satisfactory completion of the program and the other requirements for the major leads to awarding of the degree with honors or high honors.

Cognitive Science BS

The Cognitive Science major focuses on the study of intelligent systems, both real and artificial. While including a strong foundation in the traditional areas of psychology, the major is interdisciplinary in nature and emphasizes subject matter within cognitive psychology, computer science, mathematics, and related disciplines.

The requirements described below include sufficient preparation if students plan to pursue graduate work in cognitive science or related
fields; however, they may want to include additional advanced courses in psychology and fields related to cognitive science (e.g., computer science, linguistics, mathematics, philosophy, and statistics) as well as other types of research and fieldwork experiences.

Capstone Major
The Cognitive Science major is a designated capstone major. Students are required to produce a paper based on each term of their experience in a research laboratory or approved fieldwork site. Through completion of the capstone experience students are expected to identify a research topic and hypothesis to be tested or a fieldwork project and goals, show that they can organize and integrate information related to the topic or project in a clear manner in their own words, demonstrate ability to find and utilize supporting literature relevant to their project or topic, and successfully relate the paper to their experience in the laboratory or fieldwork setting.

Learning Outcomes
The Cognitive Science major has the following learning outcomes:

- Ability to identify a research topic and hypothesis to test, or a fieldwork project and goals
- Demonstrated organization and integration, in a clear manner and in the student’s own words, of information related to a topic or project
- Demonstrated ability to find and utilize supporting literature relevant to a project or topic
- Successful relation of the paper to the student’s laboratory or fieldwork experience
- Ability to discuss results in front of a peer group; verbally communicate ideas motivating the experiment, make the experiment clear to those not familiar with the methods, and answer questions

Entry to the Major

Pre-major
Students need to file a petition with the Undergraduate Advising Office to declare the Cognitive Science pre-major. They are then identified as Cognitive Science pre-majors until they (1) satisfy the preparation for the major requirements and (2) are accepted into the major through a competitive application process (for students who entered UCLA as first years) or file a petition to declare the Cognitive Science major (for students who entered UCLA as Cognitive Science pre-major transfers). Questions about the major should be directed to the Undergraduate Advising Office.

First-Year Students
Students may declare the Cognitive Science pre-major once they have established a 2.9 grade-point average (GPA) in at least one preparation for the major course.

Students must petition to declare the Cognitive Science major and can do so once they complete all preparation for the major courses and submit an application to enter the major by the end of the fall quarter of their third year at UCLA. Admission into the major is based on student academic performance in the preparation courses. Students must have a minimum 2.9 GPA in preparation coursework and submit the application by the above deadline in order to be admitted to the major. A minimum 3.2 GPA is required for guaranteed admittance to the major.

Students with a GPA between 2.9 and 3.19 in the preparation coursework enter a competitive application pool and are admitted only if there is space available in the major. Students with a GPA below 2.9 in the preparation coursework are not eligible to apply for admission to the major.

Transfer Students
Transfer applicants to the Cognitive Science major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one biology course, one general chemistry or general physics course, two calculus/analytical geometry courses, one general physics course, one philosophy course, one introduction to psychology course, one introduction to cognitive science course, one psychological statistics course, one psychology research methods course, one computer programming course in C++ and, one other computer programming course.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Policies
Students who repeat more than two preparation courses or any preparation course more than once are denied admission to the major. Each of the required courses must be taken for a letter grade (C or better in each course and a 2.5 overall grade-point average in the preparation courses) by the end of the summer quarter of the third year to be eligible to petition to declare the Cognitive Science major.

After satisfying the preparation for the major requirements, students need to petition to enter the major at the Undergraduate Advising Office.

Requirements

Preparation for the Major
Required: Life Sciences 7A or 15 or Physiological Science 3; Chemistry and Biochemistry 14A or 17 or 20A or Linguistics 1 or 2 or Physics 1A or 5A or 10 or 11; Mathematics 3A, 3B, and 3C, or 31A or 31AL and 31B; Philosophy 7 or 8 or 9 or 23 or 31; Program in Computing 10A and two courses from 10B, 10C, 15, 16A, 20A, 40A, Psychology 20A, 20B, 30, Statistics 20, 21, and Psychology 10, 85, 100A, 100B.

The Major
Required: (1) Psychology 115 (or M117A, M117B, and M117C), 120A or 120B, and one course from 124A through 124K; (2) one course from 111, M116A, 116B, 121, 186A through 186D, Computer Science 161; (3) five upper-division elective courses (20 units) from Psychology 110, 111, 112A through 116B, 118 through 119Y, 120A, 120B, 121, 124A through 124K (if taken for the major, may not be applied as an elective), 130, 133B, 133C, 133E, 135, 137A, M137B, 137G, 142H, 161, M166, 186A through 186D, 196B (one quarter may be applied if course has not been applied toward capstone requirement), 191CH (if content is approved by the Undergraduate Advising Office and course has not been applied toward the Psychology 195B or 196B requirement); Anthropology 124Q, M124R, 136A, M150, Communication 115, 118, 119, 122, 126, M127, 129, 130, 131, 155, Computer Science 111 through CM186, Linguistics 103 through 185B, Mathematics 110A through 171, Music Industry M103, Neuroscience 102, M145, C177, 180, 181, 182, Philosophy 124 through 138, 154, C154B, 170, 172, 174, 180, 181, Psychiatry M182, Statistics 100A, 100B, 100C, 101B, 101C, 115, C161, C160; and (4) in the junior or senior year, one capstone term of Psychology 195B or 196B (may be fulfilled by taking any one course from 195B or 196B or 196B/194C, provided content is approved by the Undergraduate Advising Office).

Honors Program
Students work for one year (fall through spring quarters) with a Psychology Department faculty sponsor on a research project that is the basis of a formal honors thesis. During that year they also participate in a weekly seminar (Psychology 191AH, 191BH, 191CH) in which thesis projects are presented and discussed and other topics of interest are explored with invited faculty members and other guests. Other requirements may apply.

Computing Specialization
Majors may select a specialization in Computing by (1) satisfying all the requirements for a bachelor’s degree in the specified major, (2) completing four courses from Program in Computing 10A, 10B, 10C, 15, 16A, 20A, 40A, Psychology 20A, 20B, 30, Statistics 20, 21, and (3) completing at least two courses from Psychology 85, 121, 142H, 186A through 186D (one 199 course may be substituted for one of these courses provided project has been approved by vice chair). A grade of C or better is required in each course. Students graduate with a bachelor’s degree in their major and a specialization in Computing. Students planning to enter this specialization should contact the Undergraduate Advising Office.

Policies
Preparation for the Major
Each of the required courses must be taken for a letter grade, and complete with a C or better. Students cannot take Psychology 100B until they have passed course 100A with a grade of C or better. Psychology 100A and 100B should be taken early in the career; these courses are open only to students who have declared the Cognitive Science pre-major before the term in which they plan to enroll. Students with no background in introductory statistics should take Statistics 10 before enrolling in course 100A.

The Major
Students who complete Psychology M117A, M117B, M117C receive equivalent credit for course 115 and two upper-division cognitive science 11...
Learning Outcomes
The Psychobiology major has the following learning outcomes:

- Demonstrated ability to use working knowledge of the nervous system to deduce the consequence of nervous system dysfunctions
- Demonstrated ability to relate work in literature in meaningful ways, explaining the motivation for the study and the interpretation of the results
- Demonstrated understanding of molecular events at a cellular level by describing the physiological consequences of such events in qualitative and quantitative terms
- Demonstrated ability to utilize knowledge of sensory systems by describing their processes in both quantitative and phenomenological terms
- Demonstrated ability to choose and apply the appropriate quantitative analysis tools to a data set and meaningfully interpret the results of the analysis
- Demonstrated ability to read primary literature in the field and evaluate the validity of conclusions in light of the methodology and statistical analyses used as well as the logic of assertions presented
- Demonstrated ability to communicate the results of laboratory work orally or in writing with appropriate graphic depictions of the data
- Demonstrated ability to analyze the behavior of neurons in polarized or hyperpolarized circuits and predict how other neurons in the circuit will react when other neurons are depolarized or hyperpolarized
- Demonstrated thorough knowledge of neuroanatomy, including lobes of the brain, major anatomical landmarks, cranial nerves, and major subcortical structures
- Demonstrated thorough knowledge of the sequence of events that results in an action
- Demonstrated thorough knowledge of sensory systems, including signal transmission, neuroanatomical connections, and response properties of neurons in primary cortical areas

Entry to the Major
Pre-major
Students need to file a petition in the Undergraduate Advising Office to declare the Psychobiology major. They are then identified as Psychobiology pre-majors until they (1) satisfy the preparation for the major requirements and (2) file a petition to declare the Psychobiology major.

Transfer Students
Transfer applicants to the Psychobiology major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of general biology with laboratory for majors, preferably equivalent to Life Sciences 7A, 7B, and 7C; one year of calculus; one year of general chemistry with laboratory for majors; one semester of organic chemistry with laboratory; one introduction to psychology course; one psychological statistics course; one psychology research methods course. A second semester of organic chemistry or one year of calculus-based physics is strongly recommended but not required for admission.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Policies
Student must complete all preparation for the major courses by the end of the summer quarter of their junior year to be eligible to petition to declare the Psychobiology major.

Students who repeat more than two preparation courses or any preparation course more than once are denied admission to the major. After satisfying the preparation for the major requirements, students need to petition to enter the major at the Undergraduate Advising Office.

Requirements
Preparation for the Major
Required: Psychology 10, 100A, 100B, and the Life Sciences Core Curriculum.

Life Sciences Core Curriculum
Required: Chemistry and Biochemistry 1A, 1B, 14B, 14L, 14C, and 14D, or 20A, 20B, 20L, 30A, 30AL, and 30B; Life Sciences 7A, 7B, 7C, 23L; Life Sciences 30A, 30B, and 40 or Statistics 13, or Mathematics 3A, 3B, and 3C, or 31A or 31AL, 31B, and 32A; Physics 1A, 1B, 1C, 4A, and 4B, or 5A, 5B, and 5C.

The Major
Required: (1) Ecology and Evolutionary Biology 100 or 129 or Psychology 118, and Psychology 110, 115 (or M117A, M117B, and M117C), M116A or 116B or Neuroscience 101L, 120A or 120B; (2) one course from Psychology 127A, 127B, 127C, 130, 133A through 133L, 135, 150, 161; (3) 16 units of graded elective courses from the following list: Ecology and Evolutionary Biology 112, 113A, 114A (no more than one from this group), Psychology 111, 112A through 112E, M117A, M117B, M117C, 119A through 119Y, 124K, 137A, 137G, 152, 161, 162, 164, M166, 186D, 191CH (only if content is approved by the undergraduate vice chair), Chemistry and Biochemistry 153A, 153L, Computational and Systems Biology M187, Ecology and Evolutionary Biology 100, 102, 105, 106, 110, 111, 115, 117, C119A, 120, 121, 122, 124A (only 4 units may be applied toward the major), 129, C135, 164, 170, Life Sciences 107, Microbiology, Immunology, and Molecular Genetics C18A, Molecular, Cell, and Developmental Biology 100, 104AL, 138, M140, CM156, Neuroscience 102, Physiological Science C130, C144, 146, 147, 166, 173.

Honors Program
Students work for one year (fall through spring quarters) with a Psychology Department faculty sponsor on a research project that is the basis of a formal honors thesis. During that year they also participate in a weekly seminar (Psychology 191AH, 191BH, 191CH) in which thesis projects are presented and discussed and other topics of interest are explored with invited faculty members and other guests. Other requirements may apply.

Policies
Preparation for the Major
Each of the preparation for the major courses must be taken for a letter grade (C or better in Psychology 10, 100A, and 100B, C– or better in the remaining courses) with a 2.0 overall grade-point average.

Students cannot take Psychology 100B until they have passed course 100A with a grade of C or better. Psychology 100A and 100B should be taken early in the career; these courses are open only to students who have declared the Psychobiology pre-major before the term in which they plan to enroll. Students with no background in introductory statistics should take Statistics 10 before enrolling in course 100A.

The Major
Students who complete Psychology M117A, M117B, M117C receive equivalent credit for course 115 and 10 units of upper-division psychobiology electives. All three courses must be completed to receive psychobiology elective credit.

Students must have a 2.0 grade-point average in all upper-division courses selected to satisfy major requirements, and each must be taken for a letter grade.
Honors Program

Majors intending to continue study at the graduate level are encouraged to apply for the departmental honors program. Contact the Undergraduate Advising Office during spring quarter for more information and application forms. Satisfactory completion of the program and the other requirements for the major leads to awarding of the degree with honors or high-est honors.

Undergraduate Minors

Applied Developmental Psychology Minor

The Applied Developmental Psychology (ADP) minor is designed to (1) provide a coherent, challenging academic program focused on investigating, understanding, and supporting the development of young children and their families, (2) teach undergraduate students how to apply theories, research methods, and research findings to practical concerns, and (3) prepare students to join or receive further training in various child-related professions.

Admission

The minor is open to all enrolled UCLA students (including Cognitive Science, Psychobiology, and Psychology majors) who have an overall grade-point average of 2.0 or better and have applied and been accepted into the program. Qualified students are admitted into one of two annual cohorts (one beginning in fall, the other in spring) to complete three consecutive terms of specialized coursework alongside a hands-on teaching internship (86 hours per term) at one of several UCLA child care centers. For more information about applying to the minor, contact the ADP academic coordinator by e-mail or see the department website. For questions about additional course requirements for the minor, contact a counselor in the Undergraduate Advising Office.

The Minor

Required Lower-Division Course (4 units): Psychology 10.

Required Upper-Division Courses (24 units): Psychology 134A (must be taken concurrently with course 134D), 134B (must be taken concurrently with course 134E), and four additional courses from Education 120, 132, Psychology 127C, 129F, 130, 131, 132A, 132B, 133B through 133I, 134F, 134G, 134I, 134J, 134K, 161, 167, 199A or 199B (content must be approved by the Undergraduate Advising Office), Sociology M174. One of the four additional courses must include either Psychology 130 or one course from 133B through 133I.

Internship Requirement/Fieldwork Component (8 units): Psychology 134C, 134D (must be taken concurrently with course 134A), 134E (must be taken concurrently with course 134B). Students work as interns for three consecutive academic terms at one of several UCLA child care centers serving infants, toddlers, and/or preschool-age children. The internship provides hands-on experience working with young children and opportunities to closely observe children and teachers.

Policies

No more than two courses may be applied toward both this minor and a student's major.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course, except for the fieldwork component of the internship courses, must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Cognitive Science Minor

The Undergraduate Council of the UCLA Academic Senate voted to suspend admissions to the Cognitive Science minor effective Fall Quarter 2021. Students currently in the minor are not affected by the admissions suspension.

The Cognitive Science minor is designed to introduce students to cognitive science topics as addressed in a number of different disciplines, such as biology, computer science, engineering, linguistics, mathematics, philosophy, and psychology, while allowing them to pursue a more in-depth study of cognitive science topics within specific areas of their own choice.

The minor consists of two parts. In the first part students complete background courses and satisfy a computer programming experience requirement. In the second part they select courses from three clusters of upper-division courses that have been organized to reflect different aspects of cognitive science. Students take five courses from three clusters, with no more than three courses from any one cluster.

Admission

The minor is open to all enrolled UCLA students, other than Cognitive Science majors, who have an overall grade-point average of 2.0 or better. After completing two background courses, students must make an appointment with an adviser in the Psychology Undergraduate Advising Office by e-mail to declare the minor. The three background courses must be completed by the end of the summer quarter of the third year.

The Minor

Required Courses (32 units): Psychology 85; one course from 15, 100B, Linguistics 1, or 20; and either Program in Computing 10A or Psychology 20A.

Students must complete five total courses from the following three clusters, with no more than three courses from any particular cluster: (1) bi- ological basis of cognition cluster—Linguistics C135, Music Industry M103, Neuroscience 102, M145, C177, 180, 181, 182; Psychology 110, 112E, 115, M116A or 116B, M117C (or Molecular, Cell, and Developmental Biology M175C or Neuroscience M101C or Physiological Science M180C, 119C, 119F, M119L, M119N, 137A, 137G, 161, M166; (2) human cognition cluster—Anthropology 124Q, 136A, Communication 129, Psychology 120A, 120B, 121, 124A through 124K, 133B, 133C, 133E, 186A through 186D; (3) mind and language cluster—Anthropology M150, Communication 118, 119, 126, M127, Linguistics 120A, 120B, 120C, 130, 132, C135, 185A, Philosophy 124, 125, 126, C127A, C127B, 129, 170, 172, Psychology 124A.

Policies

No more than two courses may be applied toward both this minor and a student's major.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Major

Psychology MA, CPhil, PhD

Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Psychology

Lower-Division Courses

10. Introductory Psychology. (4) Lecture, four hours. General introduction including topics in cognitive, experimental, personality, developmental, social, and clinical psychology; six hours of psychological research and a grade of C or better required of all departmental premajors. P/NP or letter grading.


19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

20A. MATLAB Programming for Behavioral Sciences. (4) Lecture, two hours; laboratory, one hour. Prior programming experience not required. Introduction to MATLAB and programming methods useful in experimental psychology. Reading and writing of code for conducting experiments, analyzing data, and modeling. P/NP or letter grading.

20B. Advanced Topics in MATLAB Programming for Behavioral Sciences. (4) Lecture, two hours; laboratory, one hour. Requisite: course 20A. Introduction of advanced topics in MATLAB programming for behavioral sciences, including Psychtoolbox, advanced MATLAB graphics and input/output, simulations and

110. Fundamentals of Learning. (4) Lecture, three hours; discussion, one hour. Requisite: courses 10, 100A. Designed for juniors/seniors. Experimental findings on animal and human conditioning; retention and transfer of training; relation of learning and motivation; intended to provide empirical basis for theory and research in this area. P/NP or letter grading.

111. Learning Laboratory. (4) Lecture, two hours; laboratory, three hours. Requisites: courses 10, 100A, 100B. 110. Designed for departmental majors. Laboratory experience with techniques in study of learning, especially with animals. Letter grading.

112A. Basic Processes of Motivated Behavior. (4) Lecture, 90 minutes; discussion, 90 minutes. Requisites: courses 10, 100A, 100B. Designed for juniors/seniors. Examination of some basic processes underlying motivated behavior, stressing environmental determinants of behaviors such as feeding, drinking, and reproduction-reproduction of physiological mechanisms that contribute to such behaviors. Consideration of topics such as reinforcement, conditioned motivated responding. Evaluation of evidence obtained in laboratory studies conducted with animals. P/NP or letter grading.

112B. Psychobiology of Fear and Anxiety. (4) Lecture, three hours. Requisites: courses 10, 100A, 110. Recommended for juniors/seniors. Presentation of biological and behavioral approaches to fear and anxiety, taken from laboratory and applied research. In addition to overview of major principles from each approach, emphasis on areas in which significant research advances have recently occurred. Examination of concordance and discordance between results from laboratory and applied research. P/NP or letter grading.

112C. Psychobiology of Anxiety and Depression. (4) Lecture, two and one half hours; discussion, 30 minutes. Requisites: courses 110 and 115, or Neuroscience M101A, M101B, and M101C. Limited to juniors/seniors. Topics include biological and behavioral approaches to anxiety and depression, taken from laboratory and applied research. In addition to overview of major principles from each approach, emphasis on areas in which significant research advances have recently occurred. Examination of concordance and discordance between results from laboratory and applied research. P/NP or letter grading.

112D. Animal Cognition. (4) Lecture, 90 minutes; discussion, 90 minutes. Requisites: courses 10, 100A, 110. Designed for juniors/seniors. Investigation of scientific study of cognition and behavior in animals. Topics include perception and attention, working and reference memory, spatial cognition, timing and counting, concept formation, and abstract reasoning. Most discussions focus on laboratory findings with animals, as viewed from evolutionary framework concerned with natural histories of animals. P/NP or letter grading.


115. Principles of Behavioral Neuroscience. (4) Lecture, three hours; discussion, one hour. Requisite: course 100A. Life Sciences 2 or 7A or 15. Not open to students with credit for course M117A (or Molecular, Cell, and Developmental Biology M117A or Neuroscience M101A or Physiological Science M180A). Designed for juniors/seniors. Topics in neurochemistry, neurophysiology, pharmacology, and their relationship to behavior. P/NP or letter grading.

M116A. Behavioral Neuroscience Laboratory. (4) (Formerly numbered 116A.) (Same as Neuroscience M116A.) Lecture, one hour; laboratory, three hours. Requisites: courses 10, 100A, 100B, and 115, or Neuroscience M110A and M110B. Not open for credit to students with credit for course 116B. Designed for Psychobiology, Psychology, and Neuroscience majors. Laboratory experience with various topics in behavioral neuroscience. Hands-on experience with important methodological and experimental approaches in neuroscience. P/NP or letter grading.

116B. Human Neuroscience Laboratory. (4) Laboratory, four hours. Requisites: courses 10, 100A, 100B, 115. Not open for credit to students with credit for 116A. Focus on human neural function in health and disease. Concentration on neural underpinnings of behaviors unique to humans. Hands-on empirical investigations of neural functions in which students themselves serve as subjects. Incorporation of neural bases of language and cognition in field of neuropsychology, and human neuroanatomy. Adresses disorders of nervous system that have profound impacts on human function such as stroke and central nervous system damage, dementia, mental illness, and pain. P/NP or letter grading.

M117A. Neuroscience: From Molecules to Mind—Cellular and Systems Neuroscience. (5) (Same as Molecular, Cell, and Developmental Biology M175A, Neuroscience M110A, and Physiological Science M180A.) Lecture, four hours; discussion, 90 minutes. Requisites: Chemistry 14A or 30A (14C may be taken concurrently), Life Sciences 7C, Physics 1B or 1B or 52B. Students must receive grade of C– or better to proceed to next course in series. Cellular neurophysiology, membrane potential, action potentials, and synaptic transmission. Sensory systems and motor system; how assemblies of neurons form complex information and control movement. P/NP or letter grading.

M117B. Neuroscience: From Molecules to Mind—Molecular and Developmental Neuroscience. (5) (Same as Neuroscience M101B, Molecular, Cell, and Developmental Biology M175B, and Physiological Science M180B.) Lecture, four hours; discussion, 90 minutes. Requisites: course M117A (with grade of C– or better), Life Sciences 7C. Molecular biology of channels and receptors: focus on voltage dependent channels and neurotransmitter receptors. Molecular biology of neurotransmission, neurotransmitter release, axonal transport, cytoskeleton, and muscle. Classical experiments and modern molecular approaches in behavioral neuroscience. P/NP or letter grading.


119A. Neuropsychopharmacology of Emotion and Cognition. (4) Lecture, four hours; discussion, 90 minutes. Requisite: course 115 or M117C. Limited to juniors/seniors. Analysis of basic pharmacologic principles, with emphasis on neurochemical modulation of emotional regulation and cognitive processes in normal and diseased state. P/NP or letter grading.

119B. How Brains Learn to Construct Models of Environment. (4) Lecture, three hours. Requisite: course 115 or M117C. Designed for juniors/seniors. Every day we encounter something new. As result of these experiences, our brain builds cognitive models of our environment. This allows us to respond flexibly and efficiently when we encounter something similar in future. Design of typical building blocks that afford this flexible behavior, and how different regions of brain contribute in different ways to model building. Discussion of how different psychological
disorders can be accounted for by disruptions in this process, providing key neural targets for pharmacological treatments. P/NP or letter grading.

119C. Cognitive Neuroscience. (4) Lecture, three hours. Requisite: course 115 or M117C. Understanding complex mental functions depends on interplay of cognitive processes and neural basis of mind may be understood using neuroscience techniques. P/NP or letter grading.

119F. Neural Basis of Behavior. (4) Lecture, three hours. Requisite: course 115. Designed for juniors/seniors. Presentation of current data and theory concerning how neuron circuits produce behavior. Mechanisms of perception, response selection, motor pattern generation, learning, and motivation, with emphasis on operation of these processes in well-defined neural circuits in animals and humans. P/NP or letter grading.

119I. Integration of Face and Brain. (4) Seminar, three hours. Requisite: course 115 or M117C. Faces play major role in social interactions in both humans and nonhuman primates and in other animals as well. Exploration of neuroanatomical, neurophysiological, and neurofunctional underpinnings of face processing (attractiveness, emotional expressions, facial skin, identity recognition). Emphasis on empirical studies that use behavioral responses in neuroimaging techniques, in effects of types of brain damage, in physiological responses to faces, and in biological studies. Discussion of evolutionary approaches to faces, as well as relationship between specific genetic mutations affecting both brain and facial appearance. P/NP or letter grading.

115J. Brain Bugs: Understanding Brain through Its Flaws. (4) Lecture, three hours. Requisite: course 115 or M117C. Designed for juniors/seniors. Psychology of brain flaws and limitations to understand how brain works by doing. Does well understanding neuroscience of why brain is poorly suited to perform some tasks such as numerical calculations, memorizing lists and names, and making unbiased decisions. Includes memory (types, 120A: memory false memories, misinformation and memory, memory capacity) and cognitive biases (framing, anchoring, and temporal discounting). Exploration of underlying neural causes of brain flaws and limitations in context of brain's associative architecture. Basic neurophysiology, synaptic plasticity, cortical plasticity, neural basis of learning and memory, and some computational neural network learning. P/NP or letter grading.

119K. Neurophilosophy. (4) Lecture, three hours. Requisite: course 115. Philosophy of mind has relied on introspection and thought experiments to explore consciousness, self, and free will. Field of neurophilosophy explores the methods and foundations of neuroscience to investigate these seemingly impenetrable constructs. Provides students with foundation in neurophilosophy, which includes basic understanding of philosophy of mind, consideration of phenomena including consciousness, volition, and self, and examination of scientific methods available for studying these phenomena. Exploration of student experiences of world and themselves within and demonstration of how alterations in brain functioning due to injury, psychiatric drugs, and dreaming result in alterations in these phenomena. P/NP or letter grading.


119M. Neural Circuits of Learning and Memory. (4) Lecture, three hours. Requisite: course 115. Designed for juniors/seniors. Designed to classify current literature on mechanisms of learning and memory from individual brain systems to circuits. P/NP or letter grading.

M119N. Visual System. (4) (Same as Neuroscience M119N.) Lecture, three hours. Requisite: course 115 or Neuroscience M101A or Physiological Science 111A. Ability to image and analyze visual world is truly remarkable feat. Coverage of anatomy and physiology of visual processing from retina to visual cortex through lectures, extensive reading, and discussions. P/NP or letter grading.

M119Q. Psychology of Aging. (4) (Same as Gerontology 119Q.) Lecture, three hours. Requisite: course 115. Designed for juniors/seniors. Aging refers to developmental changes occurring at end stages of life. Some alterations that occur represent improvement, others are detrimental to processes. Exploration of mental phenomena and exploration of ways in which positive changes can be maximally utilized and impact of detrimental alterations minimized. P/NP or letter grading.

119P. Emerging Topics in Neuroscience. (4) Lecture, two hours; discussion, one hour. Requisite: course 115. Emerging advanced topics on recent developments in neuroscience given by visitors speaking, with additional lectures by instructor on relevant background material. Reading of published scientific articles. P/NP or letter grading.

119Q. Psychobiology of Sleep and Dreams. (4) Lecture, three hours. Requisite: course 115. Designed for juniors/seniors. Study of sleep, comparison of sleep in mammalian species and sleep in subhuman animals. Circadian rhythms and circadian control of sleep, development and aging of sleep, brain chemistry and sleep, effects of sleep deprivation, sleep in psychiatric disorders, human sleep disorders, and properties of dream material. P/NP or letter grading.

119U. Neural Correlates of Psychotic Disorders. (4) Lecture, three hours. Requisite: course 115. Designed for juniors/seniors. Exploration of genetic, cellular, structural, and functional abnormalities associated with psychiatric states, including those seen in schizophrenia spectrum disorders, bipolar disorder, and drug-induced psychosis. Focus on common and unique neural findings associated with these abnormal states. Study includes view of clinical aspects of disorders covered. P/NP or letter grading.

119V. Brain and Art. (4) Lecture, three hours. Requisite: course 115. Multiple forms of art express uniqueness of human brain and mind. Discussion of neural underpinnings of art in artist and viewer and links to evolutionary, biological, aesthetic, cognitive, and social roots of art. P/NP or letter grading.

M119X. Biology and Behavioral Neurosience of Aging. (4) (Same as Gerontology M119X.) Lecture, three hours. Requisite: course 115. Designed to provide an understanding of aging processes and its terminal phase, death, which have been increasingly studied in recent years. Establishment of what is known experimentally about biology and behavior of aging and evaluation of theories developed to account for this knowledge. P/NP or letter grading.

119Y. Psychobiology of Sexual Behavior. (4) Lecture, three hours. Requisite: course 115. In-depth knowledge of scientific study of sexual behavior, with emphasis on evolutionary, biological, psychological, and social considerations. Topics include historical antecedents of sex research, evolution of sex, influence of sex hormones on brain and behavior, sexual development, and roles of genes and hormones on sexual orientation. P/NP or letter grading.

120A. Cognitive Psychology. (4) Lecture, three hours; discussion, one hour. Requisite: courses 10, 100A. Designed for juniors/seniors. Survey of cognitive psychology: how people acquire, represent, transform, and use verbal and nonverbal information. Perception, attention, imagery, memory, representation of knowledge, language, action, decision making, thinking, P/NP or letter grading.

120B. Sensation and Perception. (4) Lecture, three hours; discussion, one hour. Requisite: courses 10, 100A. Designed for juniors/seniors. Acquisition of information about physical world through basic sensory mechanisms and perceptual processes. Perception of objects, surfaces, space, motion, and connections. Connections between information, computations, and logical mechanisms in vision, audition, and other systems. P/NP or letter grading.

121. Laboratory in Cognitive Psychology. (4) Laboratory, one hour. Requisite: courses 10, 100A, 100B or 120A. Designed for Psychology and Cognitive
127A. Clinical Psychological Science. (4) Lecture, three hours; discussion, one hour. Requisite: course 10. Not open for credit to students with credit for course 127B or 127C. Study of psychological disorders, substance use disorders, schizophrenia, across lifespan, including role of biological, behavioral, social, cognitive, and cultural factors, diagnosis and treatment approaches. Discussion of stigma and practices that support inclusiveness. P/NP or letter grading.

127B. Abnormal Psychology; Biological Bases. (4) Lecture, three hours; discussion, one hour. Requisite: course 10. Not open for credit to students with credit for course 127A or 127C. Study of biological processes involved in etiology, presentation, and course of psychiatric disorders, and biological targets or mechanisms of treatment. Emphasis on clinical neuroscience and behavioral genetics as scientific modalities to understand mood disorders, substance use disorders, psychosis, and others. P/NP or letter grading.

127C. Abnormal Psychology: Developmental Perspectives. (4) Lecture, three hours; discussion, one hour. Requisite: course 10. Introduction to study of culture and human behavior in general, and culture and mental health in particular. Emphasis on cultural groups that comprise major U.S. ethnic groups (i.e., African Americans, Latinos/Chicanos, Asian Americans, and American Indians). P/NP or letter grading.


129F. Clinical Psychology of Childhood and Adolescence. (4) Lecture, two hours; discussion, one hour. Requisite: courses 10, 100A. Survey of child and adolescent psychopathology and psychotherapy from a developmental perspective. Coverage includes such conditions as anxiety disorders, depression, conduct and attention problems, eating disorders, autism spectrum disorder, eating disorders, and autism spectrum disorder. P/NP or letter grading.

130. Developmental Psychology. (4) Lecture, three hours; discussion, one hour. Requisite: courses 10, 100A. Designed for juniors/seniors. Elaboration of developmental aspects of physical, mental, social, and emotional growth from birth to adolescence. P/NP or letter grading.

131. Research in Developmental Psychology. (4) Discussion, one hour; laboratory, three hours. Requisites: courses 10, 100A, 100B, and 130 or one course from 133A through 133I. Designed for Psychology and Cognitive Science majors. Forms of scientific writing; ethics of research, especially with minors; special advantages and problems of asking developmental research questions; relevant methodologies for experimental and observational work; data analyses and data presentation options. P/NP or letter grading.

132A. Learning Problems, Schooling Problems: Policy and Practice. (4) Lecture, three hours. Designed for junior/elective or different orientations to persons with learning problems, emphasizing assessment and intervention approaches and psychological impact of such approaches. Topics include interaction of learner and environment, sociopolitical na-

ture of classroom, psychological impact of schooling, grades, and evaluations, process versus goal focus in learning. P/NP or letter grading.


133A. Adolescent Development. (4) Lecture, three hours. Requisites: courses 10, 100A. Examination of cognitive, social, physical, and physiological development of the adolescent. P/NP or letter grading.

133B. Cognitive Development. (4) Lecture, three hours. Requisites: courses 10, 100A. Major theories, approaches, and issues in study of cognitive development. Readings include original research on important topics such as development of perception, language, thinking, and problem solving, and acquisition of concepts and domain-specific language. P/NP or letter grading.

133C. Language Development. (4) Lecture, three hours. Requisites: courses 10, 100A. Application of principles of cognitive development, learning, and perception to study of language development. Topics include first and second language acquisition (sounds, meanings, grammatical structures), learning mechanisms, communication skills, and relation between language and thought in children. P/NP or letter grading.

133D. Social and Personality Development. (4) Lecture, three hours; discussion, one hour. Requisite: courses 10, 100A. Theory and research on social and personality development during childhood. Topics include parent/child attachment, temperament, self-control, aggression, sex-typing, self-concept, moral reasoning and behavior, social status and social skills, and peer group relations. P/NP or letter grading.

133E. Perceptual Development. (4) Lecture, three hours. Requisites: courses 10, 100A. Topics include origins and development of perceptual abilities, origins of knowledge about functionally important aspects of the environment, ecological and computational issues in perception, research and theory about initial perceptual capacities, and some sensory foundations. P/NP or letter grading.

133F. Psychology and Education. (4) Lecture, three hours. Requisites: courses 10, 100A. Application of principles of cognitive development, learning, and perception to educational problems. Topics include general instructional issues, psychology of reading and mathematics, exceptional children, early childhood education, and the education of the disadvantaged. P/NP or letter grading.

133G. Culture and Human Development. (4) Lecture, three hours; discussion, one hour. Requisites: courses 10, 100A. Role of culture in human development through psychology, anthropology, and autobiography. Students relate material from lectures and readings, through empirical research projects, to diverse cultural backgrounds in class, at UCLA, and in the broader community. P/NP or letter grading.

133H. Applied Developmental Psychology. (4) Lecture, three hours. Requisites: courses 10, 100A. Applied development of psychology to support and illustrate, in applied setting, theories and research findings presented in lecture. P/NP or letter grading.

134D. Fieldwork in Applied Developmental Psychology. (2) Fieldwork, 86 hours per term. Enforced corequisite: course 134A. Designed for Applied Developmental Psychology majors. Fieldwork in applications of developmental psychology to support and illustrate, in applied setting, theories and research findings presented in lecture. P/NP grading.


134F. Infant Care and Development. (4) Lecture, three hours. Requisite: course 10, one course from 130 or 133B through 133I, one statistics course. In-depth study of research methods, current research findings, and theories used to understand infant development from conception through infancy, including cross-cultural application of this knowledge to various populations. P/NP or letter grading.

134G. Early Childhood Curriculum. (4) Lecture, three hours. Requisite: course 10, one course from 130 or 133B through 133I, one statistics course. Examination of methods, materials, and philosophies that enhance development of children in context of childcare settings. Topics include issues of multiculturalism, antibias curriculum, and special needs adaptations. P/NP or letter grading.

134H. Child, Family, and Community. (4) Lecture, three hours. Requisite: course 10, one course from 130 or 133B through 133I, one statistics course. Examination of role of early childhood educators within context of diverse racial, ethnic, economic, and cultural backgrounds and impact of these dynamics on children’s development. P/NP or letter grading.

135A. Dynamic Perspectives on Parenting. (4) Lecture, three hours. Overview of key tasks of parenting and of changes in parent-child relationship from birth through young adulthood. Overview of theories, discussion of principal components of parenting, and examination of parenting across developmental stages. Examination of how parenting and parent-child relationship are affected by family dynamics and contextual factors. Studies of specific child-caregiver relationships and their theoretical and empirical foundations to meet children’s developmental needs; build positive and mutually respectful parent-child relationships; and provide positive guidance to promote self-regulation, competence, and socially responsible behavior. P/NP or letter grading.

135E. Effects of Early Adversity and Trauma. (4) Lecture, three hours. Examination of extensive evidence of disruptive impacts of adversity. Study offers insights into causal mechanisms that link early adversity to later impairments in learning, behavior, and both physical and psychological well-being. Review of research on common childhood stressors, individual and contextual factors that put children at risk for developmental deficits, and protective factors that promote successful coping and healthy adjustment. P/NP or letter grading.

135F. Social Psychology. (4) Lecture, three hours; discussion, one hour. Requisites: courses 10, 100A. Designed for juniors/seniors. Interrelationships between the individual and his social environment. Social influences on motivation, perception, and behavior. Development and change of attitudes and opinions. Psychological analysis of small groups, social stratification, and mass phenomena. P/NP or letter grading.
136A. Social Psychology Laboratory. (4) Lecture, one hour; laboratory, four hours. Requisites: courses 10, 100A, 100B, 135. Designed for Psychology majors. Introduction to designs and methods used to test social psychological hypothesis, including experiments, observation, content analysis, and/or questionnaires. P/N or letter grading.

136B. Nonexperimental Methods in Social Psychology. (4) Lecture, laboratory, four hours. Requisites: courses 10, 100A, 100B, 135. Designed for Psychology majors. Research experience with nonexperimental methods for study of social attitudes or behaviors, including fieldwork with survey research, naturalistic observation, or questionnaires. P/N or letter grading.

M136C. Experiments in Racial and Ethnic Politics. (Same as Political Science M183.) Lecture, three hours; laboratory, four hours. Requisite: course 10. Study of theory and research that addresses influence and persuasion from social psychological perspective. Particular attention given to reviewing theory and empirical research on conformity, factor analysis, generalizability, item response, optimal scaling, ordinal measurement, computer-adaptive, and related theories. Construction of tests and measures and their reliability, validity, and bias. P/N or letter grading.

M147A. Psychology of Lesbian Experience. (4) (Same as Gender Studies M147A and Lesbian, Gay, Bisexual, Transgender, and Queer Studies M147A.) Lecture, two hours; discussion, one hour. Requisite: course 10 or Gender Studies 10 or Lesbian, Gay, Bisexual, Transgender, and Queer Studies 114. Designed for juniors/seniors. Review of research and theory in gender studies and psychology to examine various aspects of lesbian experience, impact of heterosexism/stigma, gender role socialization, minority status of women and lesbians, identity development within a multicultural society, changes in psychological theories on lesbians in sociocultural context. P/N or letter grading.

M149. Language Development and Socialization. (Same as Anthropology M152P) Lecture, three hours; discussion, one hour (when scheduled). Explores how social structures and practices of language and language behavior can produce and reproduce the social worlds through which children develop. Emphasis on construction, maintenance, and reproduction of cultural, social, and cognitive constructs. Bridges work from anthropology, psychology, linguistics, and cognitive science to examine cross-cultural perspectives on child development and wide range of methodological approaches. Examination of ways in which language development and socialization interface with culture, social status, inequality, education, and cognition. P/N or letter grading.

150. Introduction to Health Psychology. (4) Lecture, three hours. Requisite: course 10. Areas of health, illness, treatment, and delivery of treatment that can be elucidated by understanding of psychological concepts and research, psychological perspective on these problems, and how psychological perspective might be enlarged and extended in medical area. P/N or letter grading.

151. Research Methods in Health Psychology. (4) Laboratory, four hours. Enforced requisites: courses 10, 100A, 100B, 150. Research methods used in health psychology, including experimental, quasi-experimental, and nonexperimental designs, examples and projects from health psychology. P/N or letter grading.

152. Mind-Body Interactions and Health. (4) Lecture, three hours. Designed for junior/senior Psychology and Psychobiology majors. Examination of bidirectional interactions between mind and body and how these interactions influence physical health. Topics include impact of stress, emotions, personality, and social world on biological systems and health. Discussion of mind-body interventions designed to reduce stress and improve health, including scientific research. P/N or letter grading.

161. Behavior and Brain Development. (4) Lecture, three hours. Requisites: courses 10, 100A. Limited to juniors/seniors. Exploration of relationship between brain development and behavior. Examination of how cognitive neuroscience can inform study of development and how developmental approach can advance progress in cognitive and developmental sciences. P/N or letter grading.

164. Puberty and Sleep. (4) Lecture, three hours. Requisite: course 10. Limited to juniors/seniors. Exploration of how normative biological and hormonal changes during puberty affect adolescent behavior and well-being. Focus specifically on puberty and sleep, which both lead to consequential effects on behavior, health, and brain development. P/NP or letter grading.

M165. Biology of Gender. (4) (Same as Gender Studies M165.) Lecture, three hours. Consideration of psychological literature relevant to understanding contemporary sex differences. Topics include sex-role development and role conflict, physiological and psychological differences between men and women, sex differences in intellectual abilities and achievement, and impact of gender on social interaction. P/NP or letter grading.

M166. Neurobiology of Bias and Discrimination. (4) (Same as Neuroscience M187 and Physiological Science M160.) Lecture, four hours. Limited to junior/senior neuroscience, physiological science, and psychology students. Exploration of aspects of mammalian brain function that generate preference, bias, and discrimination. Consideration of research at multiple levels of analysis from genetics to neural circuits to behavior. Discussion of societal implications of these research findings, including their relevance to public policies and criminal justice system. Letter grading.

167. Digital Media and Human Development. (4) Lecture, three hours. Laboratory, one hour. Open to juniors/senior students. Examination of social science research on media and technology during development to understand positive and negative roles of technology and media in children’s lives. Topics include social media, video games, brain development, and learning with technological tools from age 2 through 18 (and through emerging adulthood). May be repeated for credit. P/NP or letter grading.

168. Organizational Psychology. (4) Lecture, three hours. Introduction to variety of topics within field of organizational psychology, examining organizational behavior from variety of perspectives. Focus on individuals: what motivates them, how do they learn best, how can they manage their careers in this rapidly changing organizational landscape, and how can they develop leadership skills. Focus on groups, entire organizations, or relationships between organizations and external environment: what makes some groups work effectively and some not, how can organizations be sensitive to diversity and inclusion in workplace, what types of leadership are found in different organizations today, and what are best ways to bring about change in organizations. P/NP or letter grading.

M172. Afro-American Woman in U.S. (4) (Same as African American Studies M172 and Gender Studies M172.) Lecture, three hours, plus half hours letter. Open to juniors/senior or other activities and led by lecture course instructor. Designed to bring together students under supervising faculty member. May be repeated for credit. P/NP or letter grading.

M174. Health Disparities. (4) (Same as Life Sciences M174.) Lecture, three hours. Examination of health disparities and ways in which societal responses to race and ethnicity in combination with variety of other factors create differential quality and access to healthcare resulting in poor health outcomes in racial/ethnic minority populations due to critical thinking about assumptions that shape life sciences, medical research, clinical practice, and social and behavioral sciences as they relate to racial and ethnic minority populations and to better students to integrate concepts of culture and health disparities into other social, biological, political, psychological, genetic, and clinical health interests. P/NP or letter grading.

175. Community Psychology. (4) Designed for junior/senior Psychology majors. Application of psychological principles to understanding and solution of community problems. Topics include community development, community mental health problems, drugs, racism, and rehabilitation of prisoners.

M175SL. Addressing Social Determinants in Racial/ Ethnic Minority Communities to Reduce and Prevent Health Disparities. (4) (Same as Community Engagement M175SL; Seminar, one hour; fieldwork, 10 hours.) Examination of how addressing social determinants in racial/ethnic minority communities can reduce or eliminate physical and mental health disparities. Currently in racial and ethnic minority communities, social determinants of individuals can be function of built environment, exposure to pollutants and toxins, scarcity of supermarkets or stores with fresh produce and nutritional food, noise levels, and variety of other stressors and unhealthy conditions. Health interventions are often focused on individual-level change or increases in access to health care with little in way of changing risk environments. Designed to identify and provide opportunities to understand how to address social determinants related to negative health outcomes in racial/ethnic minority neighborhoods and communities and to experience the variety of approaches to community-based and participatory research. P/NP or letter grading.

177. Counseling Relationships. (4) Lecture, two hours; discussion, two hours. Requisites: courses 10, 100A, and 127A or 127B or 127C. Designed for junior/senior Psychology majors. Conceptual and empirical foundations of psychological counseling: comparison of alternative counseling models, emphasis on counseling approaches in community mental health areas such as drug abuse, suicide prevention, and crisis intervention. P/NP or letter grading.

182A-182B-182C. Principles of Research in Relationship Science. (1-1-1) Seminar, one hour. Introduction to research foundation of relationship science e.g., leading theories, common measures and research designs, key statistics. Students learn important professional skills in conducting research and in applying to graduate school. P/NP grading.

184A-184B. Psychology Research Opportunity Program Seminars. (2-2) Seminar, 90 minutes. Designed to bring together Undergraduate Research Opportunity Program (PROPS) students undertaking supervised tutorial research in seminar setting with one or more faculty members to discuss their own work or related work in discipline. Led by one supervising faculty member. P/NP grading.

185. Research Pracicum in Psychology. (3) Laboratory, seven hours. Corequisite: course C194D. Limited to juniors/seniors. Practical applications of psychology in research and assistance of faculty mentor. Only 12 units from any combination of courses 185, 192, 194, 195, and 196 may be applied toward undergraduate degree. May not be applied toward core course requirement in psychology Department major. Individual contract required. Information and contracts may be obtained from Undergraduate Advising Office, 1531 Franz Hall. P/NP grading.

186A. Cognitive Science Laboratory: Introduction to Theory and Simulation. (4) Laboratory, four hours. Requisites: courses 10, 85, 100A, 100B, Program in Computing 10A, 10B. Designed for junior/senior departmental majors. Models of cognition within framework of explanation at multiple levels of abstraction. Examples of elementary models in multiple psychological domains (e.g., visual perception, categorization, learning, reasoning, and problem solving). Types of models include neural networks and symbolic models. Lectures and discussions interwoven with computer simulations written in MATLAB. P/NP or letter grading.


186C. Cognitive Science Laboratory: Psychophysiological Theories and Methods. (4) Lecture, two hours; laboratory, two hours. Requisites: courses 10, 85, 100A, 100B. Designed for junior/senior departmental majors. Lectures and laboratory work that examine perceptual measurement procedures (psychophysical methods) and cognitive processing and decision models on which procedures are based, with particular emphasis on signal detection theory and its applications. Letter grading.

186D. Laboratory in Functional Neuroimaging. (4) Lecture, four hours. Enforced requisites: courses 10, 85, 100A, 100B. Limited to departmental majors. Introduction to study of brain with functional imaging (fMRI). All major aspects to be discussed, from physical basis of MR signal to data analysis. Letter grading.

188A. Special Seminars: Psychology. (4) Seminar, three hours. Limited to juniors/senior. Departmentally sponsored experimental or temporary seminars on selected topics in psychology, such as those taught by visiting faculty members. Reading, discussion, and development of culminating project. May be repeated for credit. P/NP or letter grading.

188B. Special Courses in Psychology. (4) Lecture, three hours. Designed for junior/senior majors. Departmentally sponsored experimental or temporary courses on topics of psychological interest, such as those taught by visiting faculty members. Consult Schedule of Classes. P/NP or letter grading. May be repeated for credit. P/NP or letter grading.

188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.


188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced requisite: course 188SB. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE 88S course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Contract noted on transcript. Letter grading.

190. Research Colloquia in Psychology. (1) Seminar, one hour. Designed to bring together students undertaking supervised tutorial research in seminar setting with lecture course instructor to discuss their own work or related work in discipline. Led by one supervising faculty member. May be repeated for credit. P/NP or letter grading.

191. Advanced Topics Research Seminars: Psychology. (1) Seminar, one hour. Limited to juniors/senior. Research seminar on selected topics in psychology. Reading, discussion, and development of culminating project. May be repeated for credit. P/NP grading.
191A-H 191BH-191CH. Departmental Honors Research Seminars. (2-2-2) Seminar, two hours. Enforced corequisite: course 198. Course 191AH is required to 191CH, which is requisite to 191CH. Limited to psychology honors program students. Opportunity for development and analysis of creative ideas through individual research projects with faculty sponsor and discussion of student and faculty research presentations. Information and applications may be obtained from Undergraduate Advising Office, 1531 Franz Hall. If approved in advance by Undergraduate Advising Office, 1531 Franz Hall, and 198 may be applied toward elective course requirement for any Psychology Department major. Letter grading.

192. Education Practices in Psychology. (4) Seminar, three hours. Limited to juniors/seniors. Training and supervised seminar for advanced undergraduate students to assist in courses related to psychology. Students assist in preparation of materials and development of innovative programs under guidance of faculty members and teaching assistants. Only 12 units from any combination of courses 185, 192, 194, 195, and 196 may be applied toward undergraduate degree. May not be applied toward course requirements for any Psychology Department major. Individual contract required. Information and contracts may be obtained from Undergraduate Advising Office, 1531 Franz Hall. P/NP grading.

193. Journal Club Seminars: Psychology. (1) Seminar, one hour. For advanced undergraduate students. Discussion of readings selected from current literature of particular field or attendance at and write-ups of speakers series. May be repeated for credit. P/NP grading.

194A. Internship Seminars: Psychology. (2) Seminar, two hours. Corequisite: course 195A. Forum for advanced undergraduate students to discuss their internship experiences and learn about career development. Students are exposed to professional literature in clinical science and related fields. Only 12 units from any combination of courses 185, 192, 194, 195, and 196 may be applied toward undergraduate degree. May not be applied toward course requirements for any Psychology Department major. Individual contract required. Information and contracts may be obtained from Undergraduate Advising Office, 1531 Franz Hall. P/NP grading.

194B. Research Group Seminars: Psychology. (1) Seminar, one hour. Corequisite: course 196A (3-unit option). Limited to juniors/senior Cognitive Science majors who are part of research group. Discussion of research methods and current literature in field or of research of faculty members or students. Only 12 units from any combination of courses 185, 192, 194, 195, and 196 may be applied toward undergraduate degree. May not be applied toward course requirements for Psychology Department major. Individual contract required. Information and contracts may be obtained from Undergraduate Advising Office, 1531 Franz Hall. P/NP grading.

194C. Research Group Seminars: Cognitive Science. (1) Seminar, one hour. Corequisite: course 196B (3-unit option). Limited to junior/senior Cognitive Science majors who are part of research group. Discussion of research methods and current literature in field or of research of faculty members or students. Only 12 units from any combination of courses 185, 192, 194, 195, and 196 may be applied toward undergraduate degree. May not be applied toward course requirements for Psychology Department major. Individual contract required. Information and contracts may be obtained from Undergraduate Advising Office, 1531 Franz Hall. P/NP grading.

195A. Community Internships in Psychology. (2) Tutorial (approved community setting), six hours. Corequisite: course 194A. Limited to juniors/seniors. Internship experience for Psychology majors supervised setting in community agency or business. Students meet on regular basis with supervisor and provide periodic reports of their experience. Only 12 units from any combination of courses 185, 192, 194, 195, and 196 may be applied toward undergraduate degree. May not be applied toward course requirements for any Psychology Department major. Individual contract with supervising placement sponsor required. Information and contracts may be obtained from Undergraduate Advising Office, 1531 Franz Hall. P/NP grading.

195B. Corporate Internships in Cognitive Science. (4) Tutorial, eight hours. Limited to junior/senior Cognitive Science majors. Practical applications of cognitive science through internship experience in supervised setting. Students meet on regular basis with supervisor and provide periodic reports of their experience. Only 12 units from any combination of courses 185, 192, 194, 195, and 196 may be applied toward undergraduate degree. May be applied toward course requirements for Cognitive Science major. Individual contract with supervisor required. Information and contracts may be obtained from Undergraduate Advising Office, 1531 Franz Hall. P/NP grading.

196A. Research Apprenticeship in Psychology. (3 to 4) Tutorial, eight hours. Corequisite: course 194B. Limited to juniors/senior Psychology majors. Practical applications of psychology through research under guidance of faculty mentor. Only 12 units from any combination of courses 185, 192, 194, 195, and 196 may be applied toward undergraduate degree. May be applied toward course requirements for any Psychology Department major. Individual contract required. Information and contracts may be obtained from Undergraduate Advising Office, 1531 Franz Hall. P/NP grading.

196B. Research Apprenticeship in Cognitive Science. (3 to 4) Tutorial, eight hours. Corequisite: course 194C. Limited to junior/senior Cognitive Science majors. Practical applications of cognitive science through research under guidance of faculty mentor. Only 12 units from any combination of courses 185, 192, 194, 195, and 196 may be applied toward undergraduate degree. May be applied toward course requirements for Cognitive Science major. Individual contract required. Information and contracts may be obtained from Undergraduate Advising Office, 1531 Franz Hall. P/NP grading.

Graduate Courses

200A. Pavlovian Processes. (4) Lecture, three hours. Basic principles and characteristics of learning and behavior, including Pavlovian conditioning, instrumental learning, and species-specific behavior. S/U or letter grading.

200B. Instrumental Conditioning. (4) Lecture, three hours. Topics include animal learning and conditioning and application of learning principles to goal-directed behavior, motivational processes, and goal selection in nonhuman animals. S/U or letter grading.


201. Current Issues in Learning and Behavior. (1) Discussion, 90 minutes. Designed for graduate students. Topics may be selected from any Psychological Science major. May be repeated for credit. Credit/No Credit grading.

204A. Basic Motivational Processes. (4) Lecture, three hours. Designed for graduate students. Analysis, using behavioral systems approach, of basic motivational behavior such as feeding, drinking, foraging, and reproduction. Same approach also applied to phenomena such as acquired motivation, reinforcement, and drug addiction. Historical survey of behavioral analysis of motivation and goal-directed behavior. S/U or letter grading.

204B. Fear and Anxiety. (4) Lecture, three hours. Preparation: graduate training. Presentation of theoretical and empirical advances, from biological and psychological perspectives, in fear and anxiety. Integration of animal and human research.

205A. Cortical Plasticity and Perceptual Learning. (2) Lecture, three hours. Designed for graduate students. Examination of neural basis of perceptual learning. Review of cortical plasticity and how it relates to different forms of perceptual learning in visual, auditory, and somatosensory modalities. Review of mechanisms of cortical plasticity, including basic features of long-term synaptic plasticity and computational models of cortical processing. Letter grading.

205E. Neural Basis of Reward and Value. (2) Five-week course. Lecture, three hours. Designed for graduate students. Overview of neural systems underlying reward and value. Emphasis on mechanisms of reinforcement learning and cost/benefit or value-based decision making. Readings drawn from primary literature in animal research. Letter grading.

205F. Physiology of Learning. (2) Lecture, three hours. Designed for graduate students. Search for anatomical loci of engrams. Cell biology of plasticity, including electrophysiological and molecular approaches. Theories of how neural circuitry might be organized to make learning possible. Letter grading.


205M. Neuropsychology of Perception. (2) Lecture, three hours (five weeks). Designed for graduate students. Examination of neural substrates of high-level visual processes. Include agnosia, prosopagnosia, and characteristics of electrophysiological responses recorded in primate temporal lobe. Discussion of issues regarding neural representation of knowledge. Letter grading.

205N. Dopamine Prediction Error: Case Study of Reinforcement Learning Theory. (2) Seminar, three hours. Overview of dopamine prediction error—signal exhibited when there is difference between expected outcome and actual outcome—perceptual and the underlying neural mechanisms. Letter grading.

206B. Introduction to Biological Signal Processing. (4) Lecture, three hours. Designed for graduate students dissecting anxiety, fear, and panic circuits.

205O. Neurobiology of Defensive Behaviors. (2) (TDRL), and challenges to this theory by recent work. Application to temporal difference reinforcement learning used to describe it. Discussions of papers describing reinforcement learning theory and its application to neural representation of knowledge. Letter grading.

206D. Psychology of Aging and Health. (4) Seminar, three hours. Limited to graduate students. Theories and methods in study of aging and adult development. Focus on concepts, theories, and major problems in social psychology. Letter grading.

216G. Critical Problems in Political Psychology. (4) Seminar, three hours. Exploration of nascent field of social vision, with emphasis on how observers utilize visible cues in constructing impressions of other people and how these perceptions are moderated by existing knowledge structures and motivations. S/U or letter grading.

220A. Social Psychology. (4) Lecture, three hours. Designed for graduate psychology students. Intensive consideration of concepts, theories, and major problems in social psychology.


222A. Interpersonal Relations. (4) Discussion, three hours. Requires: course 220A. Critical review of theory and research on interpersonal relations, with emphasis on friendship, dating, and marriage.

222C. Psychology of Intergroup Relations. (4) Lecture, three hours. Designed for graduate students. In-depth and comprehensive exposure to major theoretical and methodological issues within domain of intergroup relations research. Approaches not simply restricted to work within psychology but also cross-disciplinary studies in general, including anthropology, political science, and sociology. S/U or letter grading.

M222E. Foundations of Organizational Behavior. (4) (Same as Management-PhD M243.) Lecture, three hours. Designed for graduate students. Doctoral-level survey of classic and emerging theories and research in field of organizational behavior, with focus on micro-level topics related to individual and organizational processes within organizations. Exploration of how individual behaviors, cognitions, and perceptions are affected by organizational context, structure, and culture. S/U or letter grading.

222F. Professional Issues in Psychology. (4) Seminar, three hours. Acquisition of skills essential for success in graduate school and academia more broadly, including transition to graduate school, writing, manuscript reviewing, grant writing, teaching and mentoring, academic job market, job negotiating, and giving job talks. Involves combination of guest speakers, lectures, discussions, readings, written exercises, and practical experience. S/U or letter grading.


226A–226B/226C. Current Literature in Social Psychology. (2–2–2) Discussion, 90 minutes. Course 226A is limited to first-year social psychology students. Courses 226B and 226C are open to nonsocial psychology students with consent of instructor. Recent and current research papers in social psychology presented by members of seminar and their significance and methodology discussed and critiqued in depth. S/U grading.

M228A. Proseminar: Political Psychology. (4) (Same as History M236A and Political Science M261A.) Seminar, three hours. Introduction to political psychology: psychobiography, personality and politics, mass attitudes, group conflict, political communication, and elite decision making. S/U grading.

M228B. Seminar: Political Psychology. (4) (Same as Political Science M261D.) Discussion, three hours. Requires: course 220A. Examination of political behavior, political socialization, racial conflict, mass political movements, and public opinion. S/U or letter grading.

222B. Seminar: Psychological Assessment. (4) (Same as Political Science M261E.) Discussion, three hours. S/U or letter grading.
M236. Interdisciplinary Relationship Science. (4) (Same as Anthropology M295S, Education M297, and Sociology M270.) Lecture, three hours. Limited to graduate students. Approaches to describing and analyzing social science in fields of anthropology, education, psychology, and sociology. Focus on theme of understanding biological, behavioral, and cultural aspects of relationships through diverse theoretical and methodological approaches. Use of broad definition of interpersonal relationships, including relationships such as parent-child, teacher-student, sibling, peer, kin, romantic relationships, marriages, and friendships. S/U or letter grading.

236B. Methods in Social and Affective Neuroscience. (4) Seminar, three hours. Designed for graduate students. Provides insight into how to conduct research in social and affective neuroscience. S/U or letter grading.

M238. Survey Research Techniques in Psychocultural Studies. (4) (Same as Psychiatry M238.) Seminar, three hours. Designed for graduate students. Techniques for conceptualizing, conducting, and analyzing survey data; instruction in qualitative strategies for enhancing survey research on psychocultural problems.

239. Qualitative and Mixed Methods in Psychology, Education, and Social Sciences. (4) Seminar, three hours. Designed for graduate students. Substantive examples of qualitative and mixed-method research in culture and human development, both behavioral and neural. Examples include qualitative research techniques and diverse relations between qualitative and quantitative data useful for research. S/U or letter grading.

240A. Language and Cognitive Development. (4) Lecture, three hours. Preparation: one undergraduate developmental psychology course in cognitive or language development. Designed for graduate students. Consideration of major topics and concepts, key theories, latest methods, and research findings in development of language and cognition. S/U or letter grading.

240B. Social and Emotional Development. (4) Lecture, three hours. Preparation: one undergraduate developmental psychology course in social development or related topic. Designed for graduate students. Consideration of major topics and concepts, key theories, latest methods, and research findings in social and emotional development. S/U or letter grading.

240C. Developmental Psychobiology. (4) Lecture, three hours. Limited to graduate students. Introduction to emerging field of developmental psychobiology, including cognitive and affective neuroscience. Consideration of major topics and concepts, key theories, latest methods, and research findings. S/U or letter grading.


242A-242B-242F. Seminar: Developmental Psychology. (4-4-4) Seminar, three hours. Requisites: courses 240A, 240B. Designed to repeat in order and may be repeated for credit. S/U or letter grading. 242A. Perceptual Development. 242B. Cognitive Development. 242F. Development of Language and Communication.

242G. Seminar: Developmental Psychology—Adolescent Development. (4) (Same as Education M217F) Seminar, four hours. Designed for graduate students. Review of recent research on physical, cognitive, social, and psychological development during second decade. Emphasis will include published developmental changes in parent/adolescent relationships, role of peers, identity development, high-risk behaviors, stress and coping, and school adjustment. Letter grading.

244. Critical Problems in Developmental Psychology. (4) Lecture, three hours. Requisites: courses 240A, 240B. Current problems; content varies depending on interest of class and instructor. May be repeated for credit with consent of instructor.


247. Culture, Brain, and Development. (4) (Same as Sociology M248) Lecture, three hours. General introduction to interrelations of culture, brain, and development, including both social and cognitive development. Special attention to effects of social change on culture and human development. S/U or letter grading.

248. Brain and Behavioral Development during Adolescence. (4) (Formerly numbered 248J.) (Same as Neuroscience M248J.) Seminar, three hours. Foundational and emerging work on adolescent brain and behavioral development, including cognition, risk taking, emotion, identity, stress, relationships, and population diversity. Discussions of assigned readings and presentations by guest faculty and scientists. S/U or letter grading.

249. Current Issues in Quantitative Psychology. (1) Seminar, 90 minutes. Designed for quantitative graduate students and minors. Research presentations and discussions of current topics in quantitative psychology. May be repeated for credit. S/U grading.


250C. Advanced Psychological Statistics. (4) Lecture, three hours; discussion, two hours. Requisite: course 250A. Limited to graduate students. Review of traditional topics in correlation and regression analysis, including model comparison strategies, evaluation of model assumptions, testing mediation and moderation hypotheses, working with categorical variables, general linear model, and logistic regression. Letter grading.

251A-251B-251C. Research Methods. (4-4-4) Tutorial, to be arranged. Substance graduate students. Subjects design and conduct original research projects under supervision of instructor in charge. It is anticipated that many students will complete their project in two terms. Three terms usually allowed. S/U (251A, 251B) and S/U or letter (251C) grading.


254A. Mediation, Moderation, and Conditional Processes. (4) Lecture, three hours. Requisite: course 250C. Designed for students with previous experience with regression analysis. Application of linear and logistic regression to assess how (mediation) and when (moderation) the effect of one variable on another variable changes when certain processes occur (conditional process analysis). S/U or letter grading.

254C. Bayesian Statistics. (4) Lecture, three hours. Requisite: course 258A. Introduction to Bayesian inference, effective approaches to Bayesian modeling and computation, and Bayesian methods that can be used by applied researchers to solve real-life problems. Covers basic Bayesian inference. S/U or letter grading.

255A. Quantitative Aspects of Assessment. (4) Lecture, four hours. Requisites: courses 250A, 250B. Introduction to issues concerning empirical measurement of abstract constructs using both classical and modern empirical techniques. Hands-on approach allows students to develop practical experience. In addition to discussion of issues concerning reliability and validity, topics include exposure to analytic approaches, including item response theory, multiple regression, principal components analysis, exploratory factor analysis, confirmatory factor analysis, path analysis, and structural equation modeling. S/U or letter grading.

255B. Item Response Theory. (4) Lecture, three hours. Requisites: courses 250A, 250B. Introduction to item response theory (IRT) measurement models and application to educational and psychological data. Coverage of major IRT models, including models for dichotomous and polytomous formats. S/U or letter grading.


256B. Advanced Multilevel Modeling. (4) Lecture, four hours. Requisite: course 256A. Topics in analysis of clustered and longitudinal data, including multilevel models, multilevel mediation, nonhierarchical data structures, meta-analysis, modeling random processes, and mixture models. Readings in both qualitative and substantive multilevel modeling literature. S/U or letter grading.

257. Multivariate Analysis with Latent Variables. (4) (Same as Political Science M234B and Statistics M242.) Lecture, three hours. Introduction to models and methods for analysis of data hypothesized to be generated by unmeasured latent variables, including latent variable analogues of traditional methods in multivariate analysis. Causal modeling: theory testing via analysis of moment structures. Measurement models such as confirmatory, higher-order, and structural-means factory analytic models. Structural equation models, including path and simultaneous equation models. Parameter estimation, hypothesis testing, and other statistical issues. Computer implementation. Applications, S/U or letter grading.


259. Quantitative Methods in Cognitive Psychology. (4) Requisites: courses 250A, 250B. Number of nonstatistical mathematical methods and techniques commonly used in cognitive psychology. Topics include Markov chains, other stochastic processes, queueing theory, information theory, frequency analysis, etc.

260A-260B. Proseminars: Cognitive Psychology. (1–1) Presentation of research topics by students, faculty, and visiting scholars. May be repeated for credit. S/U grading.

261. Perception. (4) Lecture, three hours. Concepts, theories, and research in study of perception. Considers the questions: Why do things look, sound, taste, or feel as they do? What is the structure of perceptual systems? How do these systems process information?

262. Human Learning and Memory. (4) Lecture, three hours. Contemporary theory and research in human learning and memory, including classical conditioning and more recent learning and memory processes, structure and organization of short- and long-term memory, S/U or letter grading.

263. Psycholinguistics. (4) Lecture, three hours. Language allows humans to transfer thoughts across minds. To elucidate mental structures and processes that underlie this feat, exploration of relationship between language and mind. How does the language system itself, how mental labor is divided across distinct subcomponents. Critical examination of both classic and cutting-edge findings from experimental cognitive psychology, computational modeling, and neuroscience. Topics include relationship
between linguistic structure and meaning; parallels between language and other cognitive domains (e.g., statistical learning, Bayesian inference, prediction, etc.), on online language understanding; influences of language on thought; language-related dissociations; and efficient coding information, S/U or letter grading.


273A-273B-273C. Professional and Ethical Issues in Clinical Psychology. (2–2–2) Lecture, one hour; dis- cussion, one hour. Designed for graduate clinical psychology students. Year-long course sequence cov- ering a variety of topics necessary for clinical psycholo- gists in their clinical work, including legal and ethical issues, child abuse, suicide assessment, issues in em- pirically validated treatments, psychiatric consultation and psychotherapy, working with diverse client populations, etc. Letter grading.

M274. Health Status and Health Behaviors of Racial and Ethnic Minority Populations. (4) Same as Health Policy and Management M274.) Seminar, two hours; dis- cussion, one hour. Limited to graduate students. Overview of physical and mental health behaviors and status of major racial/ethnic groups in U.S. Where appropriate, discussion of international issues as well. S/U or letter grading.


M277. Functional Neuroimaging: Techniques and Applications. (4) Seminar, two hours. General topics related to neuroimaging methods, data acqui- sition and analysis, experimental design, and results ob- tained thus far in human systems. Strong focus on un- derstanding technologies, how to design activation imaging paradigms, and how to interpret results. Lab- oratory visits and discussion of functional MRI experiment. S/U or letter grading.

M280. Affective Disorders. (2 or 4) (Same as Psychi- atry M234.) Seminar, two hours. General topics related to depression and related mood disorders. Depressive illness, including diagnosis, pharmacology, epidemiology, psychology, phenomenology, biology, and treatment. Students enrolled for 4 units are as- signed a more intensive reading list and required to make a presentation or prepare a research paper. S/U or letter grading.

M285. Cognitive Behavior Therapy with Children: Treatment and Systems of Care. (2 or 4) (Same as Psycho- therapy C296B. Research Group Seminars: Practicum. (1) Seminar, one hour. Designed for graduate students. Training of students in applica- tion of (1) child treatment outcome literature, (2) cli- nical monitoring and feedback tools, and (3) common clinical strategies from evidence-based practices to prepare for assessment, monitoring, planning, and evaluation of children and adolescents with cognitive-behavioral problems, with the purpose of enhancing children's and adolescents' abilities to function more effectively in the home, school, and community. S/U or letter grading.
402. Clinical Research Practicum. (2) Fieldwork, two hours. Faculty and graduate students who share interests discuss current literature, new ideas, methodological issues, and preliminary findings. Meetings include research presentations and opportunities for feedback on current and proposed research to encourage, support, and facilitate student research expertise. Assigned reading included. S/U grading.

403. Special Topics Study Course. (1 to 4) Discussion, one to four hours. Under faculty supervision, group of students meets each week for quarter in self-study group to pursue specific topic of their choice that is not covered in other department courses. S/U grading.

410A-410B-410C. Clinical Teaching and Supervision. (4–4–4) Clinic, four hours. Preparation: completion of PhD comprehensive examinations, advancement to candidacy or preparation for dissertation research actively under way. Study and practice of knowledge, concepts, and theories on teaching and supervision of applied clinical psychology. Letter grading.

410D-410E-410F. Clinical Assessment Supervision. (4–4–4) Clinic, two hours; other, one hour. Designed for third-year graduate clinical psychology students. Study and practice of knowledge, concepts, and theories on teaching and supervision of psychological assessment. Letter grading.

421. Research in Social Psychology. (2) Discussion, two hours; reading and group work, four to six hours. Forum for faculty and graduate students pursuing research on a common topic to share research ideas, make research presentations, and obtain feedback on study designs, procedures, and results to foster collaborative investigations in common research areas. S/U grading.


495. Presentation of Psychological Materials. (4) Seminar, to be arranged. Supervised practicum in undergraduate teaching. Students serve as discussion section leaders in selected undergraduate courses. S/U grading.

495A. Teaching Assistant Training Seminar: Presentation of Psychological Materials I. (1) Seminar, 90 minutes. Supervised practicum in undergraduate teaching. Focus on discussion and implementation of evidence-based teaching practices. Topics include facilitating active learning, presenting material, providing constructive feedback, and teaching diverse students. Students serve as teaching assistants in course 10. S/U grading.

495B. Teaching Assistant Training Seminar: Presentation of Psychological Materials II. (1) Seminar, one hour. Requisite: course 495A. Supervised practicum in undergraduate teaching. Advanced training in use of evidence-based teaching practices. Topics include designing course materials, setting pedagogical goals, and developing teaching statements. Students serve as teaching assistants in various courses. S/U grading.

596. Directed Individual Research and Study in Psychology. (1 to 12) Tutorial, to be arranged. One 596 course is required during second year of graduate study, and one 596 or 599 course is required during each succeeding year of graduate study. (Terminal MA candidates are exempt from this requirement.) S/U grading.

597. Individual Studies. (1 to 12) Tutorial, to be arranged. Designed primarily as preparation for PhD qualifying examinations. May be required by some area committees as requisite for taking examinations. S/U grading.

599. Research for PhD Dissertation. (1 to 12) Tutorial, to be arranged. Preparation: successful completion of qualifying examinations. One 599 course is required during each year following completion of qualifying examinations. S/U grading.

**Public Affairs Minor**

**Overview**

The Public Affairs minor teaches undergraduate students the skills of policy analysis and exposes them to many of the local, state, national, and international issues facing today’s policymakers and opinion leaders. Courses explore the public (governmental) and nonprofit sectors and provide a theoretical, conceptual, and practical foundation for students. Particular attention is given to the vexing issues facing urban areas and urban planners, social welfare and social workers, and public policies that affect individuals and groups of people in their public and private lives.

**Undergraduate Minor**

**Public Affairs Minor**

**Admission**

To enter the Public Affairs minor, students must have an overall grade-point average of 2.0 or better and complete Public Affairs 10 with a grade of B or better. For more information, contact the Undergraduate Advising Office by e-mail.

**The Minor**

**Required Lower-Division Courses (10 units):**

Public Affairs 10, and 40 or 60.

**Required Upper-Division Courses (20 to 25 units):**

(1) Two or three theory and/or methods courses selected from Public Affairs M109, 110, 111, 112, 113, 114, 115, 116; (2) two or three elective courses selected from upper-division, undergraduate courses (100-199) within the four academic units of the Luskin School of Public Affairs: public affairs, public policy, social welfare, and urban planning. Students must complete five upper-division courses. If three theory/methods courses are selected, two electives are required; if two theory/methods...
courses are selected, three electives are required.

**Policies**

Lower-division courses may not be substituted. If a student has taken a non-public affairs course in statistics or microeconomics, it is recommended that the other public affairs course be taken to satisfy the second lower-division requirement.

By petition only, students may request to use one outside course (not from a Luskin School of Public Affairs unit) as an elective for the minor.

Fieldwork and internship courses, such as Social Welfare 130A, 130B, and Urban Planning M165, may not be applied toward the minor.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

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**PUBLIC AFFAIRS SCHOOLWIDE PROGRAMS**

*Meyer and Renee Luskin School of Public Affairs*

3343 Public Affairs Building
Box 951656
Los Angeles, CA 90095-1656

**Public Affairs Major**

310-794-4080

E-mail contact

Michael C. Lens, PhD, Chair

**Faculty Committee**

Kenya L. Covington, PhD (Public Policy)
Michael C. Lens, PhD (Public Policy, Urban Planning)
Lené F. Levy-Storms, PhD (Social Welfare)
José C. Loya, PhD (Urban Planning)
Meredith Phillips, PhD (Public Policy, Sociology)
Ananya Roy, PhD (Social Welfare, Urban Planning)

**Overview**

The Public Affairs major offers students a rigorous conceptual and empirical foundation that prioritizes capacity for action by students exhibiting high motivations for public service and social change. It combines interdisciplinary training in the social sciences with practical experience addressing public problems. Students will learn theoretical, empirical, and critical foundations of applied social science, qualitative and quantitative research methods, and the history and practice of community engagement.

Public Affairs students traverse the boundary between the classroom and the world through instruction in public engagement and experiential learning that develop students’ capacity to work collaboratively with communities, government agencies, nonprofit organizations, and businesses.

The major serves as a pathway for students pursuing careers serving the public interest in civil society, business, government, or through advanced graduate training in academic or professional programs.

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**Undergraduate Major**

**Public Affairs BA**

**Capstone Major**

The Public Affairs major is a designated capstone major. Students pursuing the major are required to complete a three-quarter experiential learning opportunity. The experiential learning capstone consists of three parts: an internship, seminar, and capstone project.

Internships can range from internships in community-based organizations, social enterprise businesses, or regional governments to UCLA Global Internship Program, UCLA Quarter in Washington, or UC Center Sacramento (UCSS) programs.

These experiences are accompanied by a seminar that enables students to reflect on and share their engagement experience with classmates, apply what they have learned in their coursework to their community or public engagement, and analyze how the engagement experience conforms with or differs from what they learned in coursework.

This experiential learning opportunity culminates with a capstone project that integrates what students have learned at their internship site with theory and methods learned in their major coursework.

**Learning Outcomes**

The Public Affairs major has the following learning outcomes:

- Understanding of how different contexts, institutions, and/or environments influence individual and public life and can create, exacerbate, or reduce inequality and injustice
- Demonstrated familiarity with economic, political, and/or civil society responses to social problems and public issues
- Location of, use of, and critical thinking about quantitative and qualitative evidence for understanding societal problems and/or their solutions
- Formulation of clear and convincing written and oral arguments for varied audiences
- Effective communication with collaborators, policymakers, and/or the public
- Application of theoretical knowledge, analytical methods, and communication skills to an experiential learning capstone

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**Entry to the Major**

**Admission**

Students must apply to declare the Public Affairs major. Admission into the major is based on student academic performance and an application process. Consult with Luskin School of Public Affairs undergraduate advisers for any additional admission requirements.

**Pre-major**

Students entering UCLA directly from high school can select the Public Affairs pre-major on the UCLA admission application, or complete a petition to enter the pre-major once in attendance at UCLA. Transfer students are automatically admitted to the major if they select Public Affairs on the UCLA admission application. See the Transfer Students section for more details.

The Public Affairs major includes six lower-division courses and ten upper-division courses. Students identified as Public Affairs pre-majors have the opportunity to formally apply to declare the Public Affairs major after completing four of the required lower-division courses and the school quantitative reasoning and Writing I requirements. Two of the four required lower-division courses must be Public Affairs 40 and 60, both of which serve as requisites for upper-division coursework.

Students may only apply to the Public Affairs major during winter quarter of their first or second year, once they have satisfied the following criteria: (1) Must be in good standing at the time of application. This means students cannot be on probation or subject to dismissal status when they apply. (2) Have completed, with a C or better, at least four of the six required lower-division public affairs courses (including courses taken winter quarter). Completed courses must include Public Affairs 40 and 60. The remaining two courses, if not yet taken, must be taken as soon as possible, and during the third year at the latest. All courses for both the pre-major and the major must be taken for a letter grade, and receive a B grade or better. Students entering UCLA directly from high school have the opportunity to formally apply to declare the Public Affairs major. Admission into the major is based on student academic performance and an application process. Consult with Luskin School of Public Affairs on student academic performance and an application process. Consult with Luskin School of Public Affairs undergraduate advisers for any additional admission requirements. (3) Have completed at least 45 letter-graded units (including AP and transfer units, if needed) by the end of winter quarter of the year they apply. (4) Have not exceeded 135 units of coursework (not including AP or other transfer units), by the end of winter quarter of the year they apply.

**Transfer Students**

Transfer applicants to the Public Affairs major with 90 or more units are considered for admission based on successful completion of the preparation for the major coursework. Students must take all preparation for the major courses for a letter grade, and receive a B grade or better in these courses to be competitive. Transfer credit is subject to department approval. Consult an undergraduate counselor before enrolling in any courses for the major. Transfer Students refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.
Requirements

Preparation for the Major

Required: Public Affairs 40, 60, 80, and three courses selected from Public Affairs 10, 20, 30, 50, or 70.

The Major

Required: (1) Two theory courses selected from Public Affairs M109, 110, 111, 112, 113, 114; (2) both research methods courses Public Affairs 115, 116; (3) three-term capstone sequence Public Affairs 187AX, 187BX, 187CX; (4) three additional upper-division public affairs courses.

Honors Program

Students who wish to complete an original research thesis, driven by student-defined interests and independent work, may apply to the Public Affairs honors thesis program in the spring of junior year. Students who are admitted to programs begin background research for their project over the summer and enroll in three contract research courses with their Luskin thesis adviser during their senior year. The sequence (Public Affairs 198A-198B-198C) must be completed over three consecutive quarters, starting in the fall. Students must earn at least a B in Public Affairs 198A to continue with the sequence.

Policies

Preparation for the Major

Each course must be taken for a letter grade. Preparation for the major courses must be completed with a C grade or better.

The Major

Each course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the major.

Honors Program

Admission

To apply to the honors thesis program students must (1) have senior standing by the beginning of the fall quarter in which Public Affairs 198A is taken, (2) have an overall minimum grade-point average of 3.60 or better in the major at the end of winter quarter in the year prior to beginning the thesis, (3) have completed Public Affairs 115 and 116 by the end of spring quarter in the year prior to beginning the thesis with grades of A– or better, (4) have agreement from a faculty member to serve as thesis adviser.

To apply, students submit an application containing a short research proposal, information on their academic and research preparation, and confirmation that a Luskin faculty member has agreed to advise their honors thesis during the fall, winter, and spring of the subsequent year. The Public Affairs honors committee selects applicants based on the promise of their proposed research, research-related coursework, and research experience. The selection process is competitive.

Requirements

To qualify for graduation with departmental honors, students must complete a Public Affairs honors thesis deemed to meet the standards of honors or highest honors by the Public Affairs honors committee, and have a cumulative grade-point average of 3.60 or better in the major.

The Public Affairs honors committee, with input from thesis advisers, determines whether students’ theses merit honors or highest honors.

Students may count one honors contract course toward their Public Affairs major elective requirement (with the understanding that no more than one contract course in total may count toward the Public Affairs elective requirement).

Public Affairs

Lower-Division Courses

10. Social Problems and Social Change. (S) Lecture, three hours; discussion, one hour. Introduction to social scientific approaches to study of social problems and their solutions. Using selected contemporary social problems as cases and drawing on variety of sources (such as scholarly readings, video clips, and guest speakers), exploration of how social problems and their solutions come to be defined, roles that economic, political, educational, and cultural institutions play in perpetuating or solving social problems, and how individuals, social advocates, and communities can lead or impede social change. Letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. Pass/No Pass grading.

20. Power, Politics, and Policy Change. (S) Lecture, three hours; discussion, one hour. Introduction to key institutions of government, politics, and policy in U.S., covering their history, contemporary forms, and internal dynamics. Includes various scales and branches of government as well as institutions that exercise power and influence in public decision making and social action, such as corporations, unions, media, social movements, and civil society. Letter grading.

30. Comparative Analysis of Wealth, Policy, and Power. (S) Lecture, three hours; discussion, one hour. Exploration of strategic interactions that give rise to social problems as well as the causes and mechanisms of variation in their politics, policies, and social change outcomes and their trajectories. Topics may include: historical, cross-national, and global economic, political, and social processes and factors that give rise to empirical regularities and anomalies that can be addressed. Letter grading.

40. Microeconomics for Public Affairs. (S) Lecture, three hours; discussion, one hour. Introduction to principles of microeconomics with focus on social and policy problems. Study of decisions by firms and individuals, and implications for allocation of resources. Application of economic models to public issues such as social safety net, minimum wage, education, inequality, and poverty. Letter grading.

50. Foundations and Debates in Public Thought. (S) Lecture, three hours; discussion, one hour. Introduction to core concepts of democracy and equality and challenges to implementation posed by race, class, and gender inequality. Review of standards by which political systems can be judged to be democratic and identification of obstacles to their mutual implementation. Focus on inequality, its historical causes and modern consequences. Letter grading.

60. Using Data to Learn about Society: Introduction to Empirical Research and Statistics. (S) Lecture, three hours; discussion, two hours. Not open for credit to students with credit for Economics 41, Political Science 6, Statistics 10, 12, 13, or 15. Introduction to statistical methods for analysis using statistical software. Students learn how to find and organize quantitative data; summarize, display, and interpret data; draw inferences from samples (including understanding margins of error, standard errors, and confidence intervals); test hypotheses about the associations between two variables (including tests of proportion, t-tests, chi-squared, correlation); and communicate findings to lay audiences. Letter grading.

70. Information, Evidence and Persuasion. (4) Lecture, three hours; discussion, one hour. Examination of sources and varieties of knowledge produced in social sciences. Evaluation of types of evidence, arguments, and biases in various social science disciplines and the manipulation of evidence in social issues. Examination of public life of evidence and arguments by different actors in social policy-making, persuasion, and propaganda process. Letter grading.

80. How Social Environments Shape Human Development. (4) Lecture, three hours; discussion, one hour. Overview of major theoretical, conceptual, and empirical traditions in study of human development. Exploration of how diverse cultural, social, socioeconomic, and historical contexts interact with biological, cognitive, and psychological processes to affect individuals across key developmental periods (such as early childhood, adolescence, early adulthood, middle adulthood, and late adulthood). Topics may include: historical changes in families, schools, neighborhoods, and workplace; economic conditions of families, schools, and neighborhoods; enduring effects of childhood on adult well-being; and impact of ascribed characteristics such as gender, race, and nationality on individuals’ environments, pathways, and outcomes. Letter grading.

Honors Seminars

(1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or projects and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

88HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for a maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

95. Introduction to Community or Corporate Internships in Public Affairs. (2 or 4) Tutorial, two hours; fieldwork, eight hours. Limited to freshmen/sophomores. Entry-level internship in supervised setting in corporate, governmental, or nonprofit/community organization setting related to public affairs. Students meet on regular basis with instructor and provide periodic reports of their experience. Individual contract with supervising faculty member required. May be repeated for credit. May not be used toward Public Affairs major capstone requirement; consult with undergraduate advisor. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly activity), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enroll in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

M109. Introduction to Cities and Planning. (4) (Same as Urban Planning M120.) Lecture, three hours; discussion, one hour. Survey of urban history and evolution in U.S., urban social theory, current growth trends, system of cities, urban economy and economic restructuring, traditional and alternative location theories, urban transportation, and residential location and segregation. Letter grading.
110. Urban Revolution: Space and Society in Global Context. (4) Lecture, three hours; discussion, one hour. Examination of potentialities and challenges of 21st-century urban revolution in global context. Introduction of theoretical frameworks and conceptual methods used by urban studies and planning to study cities and urban transformations, and historical and contemporary analysis of urbanization to learn about key urban transformation processes, including urbanization, gentrification, and suburbanization. Students learn about institutions and policies governing transport, space, and forms of community organizing and civil society that seek to redress urban inequalities. Introduction to key theories of space and utopian visions of urbanism. Letter grading.

111. Microeconomics: Market Failures and Inequality. (4) Lecture, three hours; discussion, one hour. Introduction to economic theory for policy analysis. Broad focus on evaluating rationale for government intervention in economy, in particular to address market failures and issues of economic inequality. Major emphasis on market failures in context of environmental sustainability, and economic inequality arising from markets for human capital, health, housing, and labor. Students are expected to have working knowledge of basic statistical and economic concepts. Letter grading.

112. Social Movements. (4) Lecture, three hours; discussion, one hour. Introduction to theory of social movement, emphasizing and contributing to social movements. Examination of how and why social movements emerge; how and why people join, lead, stay, or drop out of movements; and strategies and tactics by which social movements enact change. Draws upon wide range of social movements inside and outside of U.S. Letter grading.

113. Policy Analysis: Approaches to Addressing Social Problems. (4) Lecture, three hours; discussion, one hour. Policy analysis is designed to train students in logic of public policy analysis, introduce them to general skills required to do policy analysis, and to prepare them in persuasive presentation of their work. Development of skills fundamental to effective policy analysis and argumentation. Letter grading.


115. Using Quantitative Methods to Understand Social Problems and Their Potential Solutions. (5) Lecture, three hours; discussion, two hours. Requisite: course 60 or equivalent introductory statistics course. Course in R preferred. Introduction to multivariate quantitative research models used to answer questions in social science. Students gain practical and intuitive understanding of multivariate regression, program evaluation, and research methods, and apply knowledge by analyzing real world data. Focus on practical analytical tools using statistical software. Letter grading.

116. Using Qualitative Methods to Understand Social Problems and Their Potential Solutions. (5) Lecture, three hours; discussion, two hours. Introduction to qualitative research methods with focus on ethnographic observations, interviewing, and focus groups. Students practice conducting variety of qualitative methods. Letter grading.

117B. Network Science Using R. (4) (Same as Public Policy CM177.) Lecture, three hours. No prior knowledge of R required. Designed for juniors and seniors. Network analysis offers framework for understanding how relationships between people, places, and institutions affect public policy outcomes. For example, why individuals decide to protest or vote, amount of education they pursue, or effect of human interaction in ecosystem can all be considered using network analysis. Weekly introduction of concept from network analysis, followed by working through it using popular statistical programming language R. Letter grading.

M117C. Community-Engaged Research Methods. (4) (Same as Chicana/o and Central American Studies M129 and Labor Studies M129) Lecture, four hours. Students are trained in designing, drafting, piloting, fielding, administering, and reporting field research to adulthood. Written in collaboration with labor and community partners serving Latinx, Asian Americans and Pacific Islanders, Black, and Indigenous youth populations in Central and Northern California. Students gain historical and theoretical background on multi-racial and inclusive organizing. California. Students gain historical and theoretical background on multi-racial and inclusive organizing. Students learn how to collect and analyze data per- forming to pressing organizing issues. Study and critical analysis of youth organizing strategies. Weekly training modules on data collection and grassroots organizing strategies that prepare students for internships in grassroots youth organizing groups serving Asian American, Black, Latinx, and Native American communities. P/NP or letter grading.

M124. Child Welfare Policy. (4) (Same as Social Welfare M151.) Lecture, three hours. Limited to juniors/seniors. Examination of public child welfare system in the U.S. Review of social policies and programs that impact children. History of social policies and programs for children, including discussion of orphanages, foster care, and adoptions. Transformation of public child welfare system into child protection system. Impact of welfare reform on child policies and programs in the U.S. Major programs designed to provide safety net for disadvantaged children, including welfare, food stamps, child care, child support, and children’s allowances programs. Review of research and analysis in this area. Overview of social policies and programs that impact children in U.S. Examination of comparative policies in other countries. P/NP or letter grading.

M125. Creating Safe and Welcoming Schools. (4) (Same as Chicana/o and Central American Studies M125, and Labor Studies M125) Lecture, two hours; discussion, one hour. Examination of historical context and causes of school violence, theories, and diverse perceptions of school climate and safety. Special emphasis on impact of school climate on oppressed groups and how social contexts such as poverty and how neighborhood resources influence school safety. Letter grading.


M129XP. Intergenerational Communication across Lifespan. (4) (Same as Gerontology M142XP and Social Welfare M142XP) Lecture, three hours; fieldwork, one hour. Limited to juniors/seniors. Do you say to your parents in conversation? How do you talk to your grandparents? Does your family talk well to another as group? How do you communicate well with boss who is 30 years older than you? Individuals of all ages interact with one another, and their interactions have significance throughout their lives. Introduction to psychological, interpersonal, and societal issues related to intergenerational communication across lifespan. Letter grading.

M130. Biomedical, Social, and Policy Frontiers in Human Aging. (5) (Same as Gerontology M108 and Social Welfare M108) Lecture, four hours. Limited to juniors/seniors. Course of human aging charted in ways that are based on variety of recent research frontiers. Use of conceptual frameworks to increase relevance of aging to students’ lives and enhance their appreciation for that is based on recognition that aging is inherently interdis- ciplinary phenomenon, and life course perspective that is distinguished by analytical framework it provides for understanding how individual and social lives and changing social structures, and allows students to understand how events, successes, and losses at one stage of life can have important effects later in life. Focus on individuals and groups that are part of one particular sociocultural context. Letter grading.


134. Politics of U.S. Health Policy. (4) Lecture, three hours. Students gain formative experience in process of health policy making in U.S. primarily through lens of debate over national health care reform culminating in passage of Patient Protection and Affordable Care Act (ACA, 2010) and growing opposition of opponents to repeal or overturn it. Letter grading.

135. Firearm Violence Prevention Policy. (4) Lecture, three hours. Exploration of range of topics connected to contemporary debates about firearm violence in U.S. Examination of causes and current evidence of firearm violence in different contexts. Letter grading.

136. Cannabis Policy and Society. (4) Lecture, three hours. Designed to enable students to formulate re- sponsible opinions on cannabis legalization, industry,
regulation, and taxation; to defend them with good analysis; and to understand logic behind opinions that may differ from their own. Letter grading.

137. Gangs, Criminal Justice, and Mass Incarceration. (4) Lecture, three hours. Exploration of the historical and political justice policies that surround gangs, sentencing, prisons, incarceration, and rehabilitation. Students develop understanding of how to communicate knowledge and research regarding criminal justice system, gangs, and mass incarceration. Letter grading.

140. Race, Rights, and Citizenship: Encounters with Bureaucracies. (4) Lecture, three hours. Examination of role of bureaucracies in emergence of, persistence of, and expansion of inequality. Exploration of dilemmas that bureaucrats face as they do their jobs, and experiences of residents who interact with bureaucrats. Consideration of how peoples’ experience of bureaucracies is associated with socioeconomic standing, and reflection on how experiences with bureaucracies convey messages about race, citizenship, and belonging. Letter grading.

M142. Latino Social Policy. (4) Same as Chicana/o and Latin American Studies CM177.) Lecture, three hours; discussion, one hour (when scheduled). Examination of social welfare of Latinos (Chicanos, Puerto Ricans, and Cubans) in U.S. through assessment and critical analysis of social issues affecting them. Survey of social, economic, cultural, and political circumstances affecting ability of Latinos to access public benefits and human services. Letter grading.


148. U.S. Housing Policy and Geography of Opportunity. (4) Lecture, three hours. Exploration of contemporary levels of racial inequality through lens of U.S. housing policy. Study includes historical overview of federal policies and housing policies by which lives in racially segregated, high-poverty neighborhoods constrain opportunity and social mobility; exploration of most prevalent affordable housing policies; and evaluation of various innovative policy designs and outcomes. Letter grading.

149. International Housing Policy. (4) Lecture, three hours; discussion, one hour. Study of housing policies in diverse range of countries, comparing those with U.S. housing policy. Exploration of policies in different contexts to better understand how institutional, economic, legal, and cultural contexts shape housing policies around the world. Letter grading.

M153. Parking and City. (4) Same as Urban Planning CM151.) Lecture, three hours. Requisites: course 40 or Economics 1 or 11. Parking is misunderstood link between transportation and land use. Transportation engineers practice free parking simply because there is end of most trips, while urban planners treat parking as transportation issue that engineers must study. No profession is intellectually responsible for parking, and everyone seems to assume that someone else is doing hard thinking. Mistakes in planning for parking help to explain why planning for transportation and land use has in many ways gone slowly, subtly, incrementally wrong. Study of theory and practice of planning for parking and examination of how planning for parking in U.S. has become planning for free parking. Exploration of new ways to improve planning for parking, transportation, and land use. Letter grading.

154. Green Transportation. (4) Lecture, three hours. Introduction to transportation planning and policy from environmental perspective. How to encourage alternative modes of transportation such as walking and biking? How to reduce emissions of greenhouse gas emissions. Planning for autonomous vehicles, bicycle, parking, pedestrian, and transit. Environmental justice in transportation. Letter grading.

M157. Built Environment and Health. (4) Same as Urban Planning CM157.) Lecture, three hours. Exploration of important linkages between urban-built environment and public-health outcomes using ecological, urban planning, and community-based lenses through theory and series of case studies. Knowledge of these linkages is used to propose ecological solutions to issues at nexus of built environment and public health. Letter grading.

158XP. Trees in City. (4) Lecture, three hours. Introduction of foundational urban ecological concepts using case of urban trees. Includes wide range of disciplines as well as practitioner and community organizers to understand social and ecological implications of urban vegetation. Students partner with environmental-non-profit located in Los Angeles. Letter grading.

M159. Politics of Water. (4) Same as Urban Planning M151W. Lecture, three hours. On-going debate over whether there is, or where there should be, a regulatory body to allocate water. Reading of the history of water rights and the development of the U.S. Federal Water Policy Act. Letter grading.

M160. Urban Sustainability. (4) Same as Urban Planning M161.) Lecture, three hours. In 21st century, majority of Earth’s population now lives in urban areas and virtually no part of globe remains untouched by human activities. Cities constitute crucibles of most pressing social and environmental challenges but are also potential centers of innovation for addressing those challenges. Examination of theory and practice from urban sustainability and urban planning perspectives. Letter grading.

M161. Environmental Justice through Multiple Lens. Lecture, three hours. Examination of intersection of race, economic class, and environment in U.S., with focus on issues related to social justice. Course environment is an invitation to explore how forms and quality is a highly complex phenomenon, multidisciplinary and multi-population approach taken, using alternative ways of understanding, interpreting, and taking action. P/NP or letter grading.

M164. Science, Technology, and Public Policy. (4) (Same as Electrical and Computer Engineering CM182 and Public Policy CM182.) Lecture, three hours. Recent and continuing advances in science and technology are raising profoundly important public policy issues. Consideration of selection of critical policy issues, each of which has substantial ethical, social, economic, political, scientific, and technological aspects. Letter grading.

M165. Advanced Technology: Public Policy: Public Policy, Regulation, and Law. (4) (Same as Public Policy CM175.) Lecture, three hours. Examination of cutting-edge public policy and regulatory issues implicated by advanced technologies such as artificial intelligence, drones, autonomous vehicles, blockchain/Biotech, etc. Exploration of whether and how such new technologies should be regulated. Exploration of how policymakers should balance need to promote investment and innovation against need to protect public against potential misuse and abuse of these new technologies. Exploration of many issues raised by these technologies such as privacy, national security, network neutrality, intellectual property rights, and more. Letter grading.

170. Civil Society, Nonprofit Organizations, and Philanthropy: Comparative Perspectives. (4) Seminar, three hours. Increased importance of nonprofits and philanthropy, and (re-)discovery of civil society have moved this set of institutions closer to center of policy agendas. Introduction of historical and historical background. Examination of organizational performance and impact. Exploration of key policy issues. Comparative perspective between U.S. and other countries and fields. Letter grading.

172. Development and Its Governance. (4) Lecture, three hours. Exploration of how economics, institutions, and politics interact to constrain and shape development strategies—emphasizing tension between normative visions of good economic policy and good governance and practical challenge of identifying practical ways of fostering change in specific settings. Focus on challenges of development in low- and middle-income settings, with exploration of governance challenges within U.S. Letter grading.

174. Cultural Policy and Cultural Diplomacy: Soft Power, Creative Economy, Innovation, and Arts. (4) Lecture, three hours. Culture is one of most complex conveners of cultural and political policies at international, national, and local levels. Exploration of culture as system of meaning and identity, as well as culture as art and creative expression. Exploration of role of cultural relations and cultural diplomacy. Letter grading.

175. Communications and Conflict in Public Affairs. (4) Lecture, four hours. Interactive course that prepares students for successful work with collaborators, policymakers, and public. Students gain interpersonal skills, cultural competency; learn effective communication, conflict resolution, and negotiate their interests successfully; learn to engage constituencies and build community around shared goals. P/NP or letter grading.

M176XP. Making Films about Food. (5) (Formerly numbered M176SL.) (Same as Community Engagement and Social Change M176XP and Food Studies M176.) Lecture, three hours. In this course, students learn to document video production and distribution. Students work on assignments in pairs and small groups to create 8-10 minute video about one of several Los Angeles-based partnership organizations that work towards healthy, local, sustainable food. Consideration, through video production, of challenges posed by existing farming, ranching, and distribution methods, and strategies these groups are pursuing to create more sustainable food pathways. Students look at social media communication strategies to help think through intervention in face of historically entrenched industrial food production and regulations that remain favorable to mass-produced, processed food items. P/NP or letter grading.

M179A. Social Movements in Theory and Practice. (4) (Same as Public Policy M179.) Lecture, three hours. Social movement is group of people pressuring for political or social change over long periods of time. Study focuses on how mass movements form, when and where they are likely to form, what types of tactics they choose, how those tactics affect their success, and role new technologies play. Weekly focus on one specific topic, such as nonviolence or social media, with historic and current movements used as case studies. Letter grading.

180. Lawyers, Law, and Public Affairs. (4) Lecture, three hours. Interplay between public affairs, public policy, and law represents one of most significant and fundamental aspects of American democracy. Students gain tools necessary for understanding how law shapes public policy, and how public policy shapes law. Covers key skills for understanding legal reasoning and shows how those skills operate in various substantive legal policy areas. Letter grading.

187AX-187BX-187CX. Experimental Learning Capstone. [5–5–5] (Formerly numbered 187A-187B-187C.) Lecture, two hours; discussion, one hour. Course 187AX is requisite to 187BX, which is requisite to 187CX. Limited to and required for Senior Public Affairs majors. Students apply public affairs course content and methods to issues they care about; refine understanding of concepts and methods based on internship experience; gain new knowledge about specific topics related to their internship; and develop new skills needed to complete capstone project. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supervised research, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.
199. Directed Research or Senior Project in Public Affairs. (2 to 6) Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for maximum of 16 units. Individual contract required. P/NP or letter grading.

PUBLIC HEALTH
Jonathan and Karin Fielding School of Public Health
A1-269 Center for Health Sciences Box 951772
Los Angeles, CA 90095-1772
Public Health 310-825-5524
Catherine A. Sugar, PhD, Chair
Faculty Committee
Ronald S. Brookmeyer, PhD (Biostatistics)
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Rachael M. Jones, PhD, MPH, CIH (Environmental Health Sciences)
Robert Kim-Farley, MD, MPH (Community Health Sciences, Epidemiology)
Shira C. Shafir, PhD (Community Health Sciences, Epidemiology, Health Policy and Management)
Catherine A. Sugar, PhD (Biostatistics, Statistics and Data Science)

Overview
The profession of public health is responsible for the protection, preservation, and promotion of the health of communities and populations. Although the health problems of today differ from those of the past and will differ from those of the future, the professionals who make up the field need to be trained to respond to broad community problems utilizing the basic ideas of prevention of disease and promotion of well-being. This goal can be achieved only with assessments of the health status of the population through data gathering and analysis, as well as knowledge of how health risk and protective factors such cultural, social, environmental, individual factors influence rates of disease and death in societies and communities.

Undergraduate Study
Through the completion of program requirements, including a culminating capstone experience, students demonstrate mastery of foundational domains and competencies as established by the Council on Education in Public Health (CEPH). Students trained in public health practices and core concepts are well-equipped to support the development of programs, policies, practices, advocacy, research and data analysis that can improve overall public health. Graduate-level study in public health and its related fields is highly encouraged for motivated students.

Learning Outcomes
The Public Health major has the following learning outcomes:

- Demonstrated knowledge of concepts and applications of basic statistics
- Demonstrated knowledge of foundations of biological and life sciences
- Demonstrated knowledge of history and philosophy of public health; and its core values, concepts, and functions across the globe and in society
- Demonstrated knowledge of basic concepts, methods, and tools of public health data collection, use, and analysis; and why evidence-based approaches are an essential part of public health practice
- Demonstrated knowledge of concepts of population health; and basic processes, approaches, and interventions that identify and address major health-related needs and concerns of populations
- Demonstrated knowledge of underlying science of human health and disease, including opportunities for promoting and protecting health across the life course
- Demonstrated knowledge of socioeconomic, behavioral, biological, environmental, and other factors that impact health and contribute to health disparities
- Demonstrated knowledge of fundamental concepts and features of project implementation including planning, assessment and evaluation
- Demonstrated knowledge of fundamental characteristics and organizational structures of the U.S. health system and differences between systems in other countries
- Demonstrated knowledge of basic concepts of legal, ethical, economic, and regulatory dimensions of health care and public health policy; and the roles, influences, and responsibilities of different agencies and branches of government
- Demonstrated knowledge of basic concepts of public health-specific communication, including technical and professional writing and use of mass media and electronic technology
- Demonstrated proficiency in oral and written communication of public health information through a variety of media to diverse audiences
- Demonstrated proficiency locating, using, evaluating, and synthesizing public health information

Undergraduate Majors
Public Health BA
Capstone Major
The Public Health major is a designated capstone major. The goal of the capstone is to provide a culminating experience for students in which they complete an integrative, scholarly, or applied project that reflects the knowledge and skills gained in the program to a public health problem or issue.

198HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

191A. Variable Topics Seminar: Public Affairs. (4) Seminar, three hours; outside study, nine hours. Emerging issues in public affairs. May be repeated for credit. Letter grading.

M191DC. CAPPP Washington, DC, Research Seminar, three hours; outside study, nine hours. Limited to CAPPP Program students. Seminars for undergraduate students in Center for American Politics and Public Policy’s program in Washington, DC. Focus on development and execution of original empirical research based on experiences from Washington, DC-based field placements. Study of variety of qualitative methods (observation, interviewing, etc.), with comparison to quantitative analysis. Examination of features of solid and significant research; intensive writing. Letter grading.

M191F. Variable Topics Seminar: Public Policy. (4) (Same as Public Policy CM191F.) Seminar, three hours; when scheduled outside study, eight hours. Emerging issues in public policy. May be repeated for credit. P/NP or letter grading.

195. Community or Corporate Internships in Public Affairs. (2 or 4) Tutorial, to be arranged; fieldwork, six to 12 hours. Limited to juniors/seniors. Internship in supervised setting in corporate, governmental, or nonprofit/community organization setting related to Public Affairs. Students meet with instructor and provide periodic reports of their experience. Individual contract with supervising faculty member required. May be repeated for credit. May not be used toward Public Affairs major capstone requirement; consult with undergraduate adviser. P/NP or letter grading.

195CE. Community or Corporate Internships in Public Affairs. (4) Tutorial, to be arranged; fieldwork, eight to 10 hours. Limited to juniors/seniors. Internship in corporate, governmental, or nonprofit settings coordinated through Center for Community Engagement. Students complete weekly written assignments, attend biweekly meetings with graduate student instructor, and write final research paper. May be repeated for credit. P/NP or letter grading. No more than 8 units may be applied toward major; units applied must be taken for letter grade. May not be applied toward concentration or distribution requirements. Individual contract with supervising faculty member required. P/NP or letter grading.

M195DC. Quarter in Washington, DC, Internships. (4) (Same as Community Engagement and Social Change M195DC, History M195DC, Political Science M195DC, and Sociology M195DC.)Tutorial, four hours. Limited to junior/senior Quarter in Washington program students. Internships in Washington, DC, through Center for American Politics and Public Policy. Students meet on regular basis with instructor and provide periodic reports of their experience. Individual contract with supervising faculty member required. P/NP grading.

196. Research Apprenticeship in Public Affairs. (2 to 4) Tutorial, three hours per week per unit. Limited to juniors/seniors. Research apprenticeship for upper-division students under guidance of faculty mentor. May be repeated for credit. Individual contract required. P/NP grading.

198A-198B-198C. Honors Research in Public Affairs. (4–4–4) Tutorial, to be arranged. Limited to seniors. Honors research in major. Requisites: courses 115, 116. Course 198A is requisite to 198B, which is requisite to 198C. Development and completion of research project and thesis under direct supervision of faculty member. Individual contract required. Letter grading.
Entry to the Major

Admission
Admission to the Fielding School of Public Health is by application and competitive—using courses, grades, grade-point averages, and essays as minimum standards for consideration. Only a limited number of students are admitted each year. Applicants are not automatically accepted into the major.

First-year applicants must apply for major standing at the end of winter quarter of their sophomore year. Late applications are not accepted. While recommended, pre-major standing is not required to apply for the major. A copy of the major application is available on the program website.

Transfer students admitted to UCLA under another major are not eligible to apply for the Public Health BA. Transfer students interested in public health are encouraged to pursue the minor instead.

Pre-major

Incoming first-year students may be admitted as pre-majors. All other students admitted as first years must first meet with an academic advisor in the Undergraduate Student Services Office, A1-269 Center for Health Sciences, before requesting pre-major standing.

Transfer Students
Transfer applicants to the Public Health BA major with 90 or more units must complete the following preparatory courses prior to admission to UCLA: one general biology course with laboratory, one general chemistry course, and one introductory statistics course. Public Health 50A and 50B must be taken at UCLA upon admission to the University.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major
Required: (1) Introduction to Public Health—Public Health 50A, 50B; (2) Principles of Scientific Knowledge—Chemistry and Biochemistry 14A or 17, Life Sciences 7A or 15, Statistics 10 or 13; (3) Health and Society—one course from an approved list available on the school website; (4) Cultural Competency—one course from an approved list available on the school website; (5) Communication Fundamentals—Communication 1 or any approved Writing II course.

The Major
Required: (1) Foundations of Public Health Knowledge and Practice—Biostatistics 120, Community Health Sciences 120, Environmental Health Sciences 120, Epidemiology 120, Health Policy and Management 120; (2) Public Health Electives—three upper-division courses (minimum of 12 units) selected from the school’s undergraduate course offerings; (3) Community Engagement—Public Health 195CE or an approved course; (4) Capstone Experience—Public Health 185A, 185B.

Honor Program
To receive School Honors, students must complete all upper-division courses in the major with an overall grade-point average of 3.5 or better. For highest School Honors, students must also complete a senior thesis. The senior thesis may be satisfied by completing either Public Health 198 or a departmental 198 course. The 198 course may not be counted as an elective course toward the major and must be supervised by an Academic Senate faculty member from the school. Highest honors is awarded if the faculty sponsor deems the work superior.

Policies

Preparation for the Major
Each course must be taken for a letter grade.

The Major
No more than 4 units from courses numbered 195 to 199 may be applied toward the elective requirement.

Public Health BS

Capstone Major
The Public Health major is a designated capstone major. The goal of the capstone is to provide a culminating experience for students in which they complete an integrative, scholarly, or applied project that reflects the knowledge and skills gained in the program to a public health problem or issue.

Learning Outcomes
The Public Health major has the following learning outcomes:

- Demonstrated knowledge of concepts and applications of basic statistics
- Demonstrated knowledge of foundations of biological and life sciences
- Demonstrated knowledge of history and philosophy of public health; and its core values, concepts, and functions across the globe and in society
- Demonstrated knowledge of basic concepts, methods, and tools of public health data collection, use, and analysis; and why evidence-based approaches are an essential part of public health practice
- Demonstrated knowledge of concepts of population health; and basic processes, approaches, and interventions that identify and address major health-related needs and concerns of populations
- Demonstrated knowledge of underlying science of human health and disease, including opportunities for promoting and protecting health across the life course
- Demonstrated knowledge of socioeconomic, behavioral, biological, environmental, and other factors that impact human health and contribute to health disparities
- Demonstrated knowledge of fundamental concepts and features of project implementation including planning, assessment and evaluation
- Demonstrated knowledge of fundamental characteristics and organizational structures of the U.S. health system and differences between systems in other countries
- Demonstrated knowledge of basic concepts of legal, ethical, economic, and regulatory dimensions of health care and public health policy; and the roles, influences, and responsibilities of different agencies and branches of government
- Demonstrated proficiency in oral and written communication of public health information through a variety of media to diverse audiences
- Demonstrated proficiency locating, using, evaluating, and synthesizing public health information

Entry to the Major

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First-year applicants must apply for major standing at the end of winter quarter of their sophomore year. Late applications are not accepted. While recommended, pre-major standing is not required to apply for the major. A copy of the major application is available on the program website.

Transfer students admitted to UCLA under another major are not eligible to apply for the Public Health BS. Transfer students interested in public health are encouraged to pursue the minor instead.

Pre-major

Incoming first-year students may be admitted as pre-majors. All other students admitted as first years must first meet with an academic advisor in the Undergraduate Student Services Office, A1-269 Center for Health Sciences, before requesting pre-major standing.

Transfer Students
Transfer applicants to the Public Health BS major with 90 or more units must complete the following preparatory courses prior to admission to UCLA: one general biology course with laboratory, one year of general chemistry and one year of calculus—both with laboratory. A second semester of or beyond basic organic chemistry and one year of calculus—both with laboratory. A second semester of or beyond basic organic chemistry.

To receive School Honors, students must complete all upper-division courses in the major with an overall grade-point average of 3.5 or better. For highest School Honors, students must also complete a senior thesis. The senior thesis may be satisfied by completing either Public Health 198 or a departmental 198 course. The 198 course may not be counted as an elective course toward the major and must be supervised by an Academic Senate faculty member from the school. Highest honors is awarded if the faculty sponsor deems the work superior.

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Transfer Students
Transfer applicants to the Public Health BS major with 90 or more units must complete the following preparatory courses prior to admission to UCLA: one general biology course with laboratory, one year of general chemistry and one year of calculus—both with laboratory. A second semester of or beyond basic organic chemistry and one year of calculus—both with laboratory. A second semester of or beyond basic organic chemistry.

To receive School Honors, students must complete all upper-division courses in the major with an overall grade-point average of 3.5 or better. For highest School Honors, students must also complete a senior thesis. The senior thesis may be satisfied by completing either Public Health 198 or a departmental 198 course. The 198 course may not be counted as an elective course toward the major and must be supervised by an Academic Senate faculty member from the school. Highest honors is awarded if the faculty sponsor deems the work superior.

Policies

Preparation for the Major
Each course must be taken for a letter grade.

The Major
No more than 4 units from courses numbered 195 to 199 may be applied toward the elective requirement.

Public Health BS

Capstone Major
The Public Health major is a designated capstone major. The goal of the capstone is to provide a culminating experience for students in which they complete an integrative, scholarly, or applied project that reflects the knowledge and skills gained in the program to a public health problem or issue.

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- Demonstrated knowledge of fundamental characteristics and organizational structures of the U.S. health system and differences between systems in other countries
- Demonstrated knowledge of basic concepts of legal, ethical, economic, and regulatory dimensions of health care and public health policy; and the roles, influences, and responsibilities of different agencies and branches of government
- Demonstrated proficiency in oral and written communication of public health information through a variety of media to diverse audiences
- Demonstrated proficiency locating, using, evaluating, and synthesizing public health information
Requirements

Preparation for the Major

Required: (1) Introduction to Public Health—Public Health 50A, 50B; (2) Advanced Foundations of Scientific Knowledge—Chemistry and Biochemistry 14A, 14B, 14BL, 14C, 14CL, 14D, or 20A, 20B, 20L, 30A, 30AL, 30B; Life Sciences 7A, 7B, 7C, 23L; Life Sciences 30A, 30B, and 40 or Statistics 13, or Mathematics 3A, 3B, 3C, and Statistics 10 or 13; Physics 1A, 1B, 1C, 4A, and 4BL, or 5A, 5B, and 5C; (3) Health and Society—one course from an approved list available on the school’s website; (4) Cultural Competency—one course from an approved list available on the school website; (5) Communication Fundamentals—Communication 1 or any approved Writing II course.

The Major

Required: (1) Foundations of Public Health Knowledge and Practice—Biostatistics 120, Community Health Sciences 120, Environmental Health Sciences 120, Epidemiology 120, Health Policy and Management 120; (2) Public Health Electives—three upper-division courses (minimum of 12 units) selected from the school’s undergraduate course offerings; (3) Community Engagement—Public Health 195 to 199 may be applied. Students may complete all five department 100-level courses required for the minor. A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor. Each minor course must be taken for a letter grade, and students must have a minimum grade of C (2.0) in each and an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Policies

Preparation for the Major

Each course must be taken for a letter grade.

The Major

No more than 4 units from courses numbered 195 to 199 may be applied toward the elective requirement.

Undergraduate Minor

Public Health Minor

The Public Health minor is designed for students who wish to learn more about core public health functions, including the assessment and monitoring of the health of communities and populations at risk to identify health problems and priorities, the formulation of public policies designed to solve identified local and national health problems and priorities, the assurance that all populations have access to appropriate and cost-effective care, and the evaluation of the effectiveness of that care.

Admission

To enter the Public Health minor, students must be in good academic standing with an overall grade-point average of 2.0 or better, have completed 90 or more units, and apply to the Fielding School of Public Health Student Affairs Office, A1-269 Center for Health Sciences. Acceptance to the minor is competitive and based on grade-point average and an application essay.

The Minor

Required Lower-Division Courses (10 units): Introduction to Public Health—Public Health 50A, 50B.

Required Upper-Division Courses (20 units): Foundations of Public Health Knowledge—three courses selected from Biostatistics 100A, Community Health Sciences 100, Environmental Health Sciences 100, Epidemiology 100, or Health Policy and Management 100; (2) Public Health Electives—two upper-division courses (minimum of 8 units) selected from the school’s undergraduate course offerings.

Graduate Majors

Biostatistics MPH

Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Community Health Sciences MPH

Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Doctor of Public Health

Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Environmental Health Sciences MPH

Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

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Epidemiology MPH
Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Health Management MPH
Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Health Policy MPH
Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Master of Public Health
Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Articulated Degree Programs
Articulated degree programs permit no credit overlap; students must complete degree requirements separately for each degree.

Concurrent Degree Programs
Concurrent degree programs allow students to reduce the number of courses required for two degrees, since some courses may apply to both degrees.

Public Health
Lower-Division Courses
19. Flat Fax Freshman Seminars. (1 Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

50A. Introduction to Public Health I. (5 Lecture, four hours; discussion, one hour. Systematic exploration of history, philosophy, development, and scope of public health in U.S. and globally. Emphasis on scientific, social, and legal basis for public health practice, including strategies for advancing individual, community, and environmental public health. Survey of core public health functions and essential services with special focus on population health, health equity, environmental justice, and financing of health services. Letter grading.

50B. Introduction to Public Health II. (5 Lecture, four hours; discussion, one hour. Requisite: course 50A. Exploration of contemporary public health issues and challenges in U.S. and elsewhere with goal to acquaint students with current public health functions, issues, policies, practices, and current strategies for advancing people’s health. Letter grading.


99. Student Research Program. (1 to 2 Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses
M106. Health in Chican/o/Latino Population. (4) (Same as Chicano/o and Central American Studies CM106) Lecture, four hours; discussion, one hour. Designed for juniors/seniors. Examination of Chicano/Latino health status through life expectancy, causes of death, reportable diseases, services utilization, provider supply, and risk behaviors within demographic/immigration changes. Binarational view of health effects in U.S. and Mexican borderland. Letter grading.

C150. Fundamentals of Public Health. (4) (Formerly numbered 150) Lecture, four hours; discussion, one hour. Limited to nonmajors. Not open for credit to students with credit for course 50A. Exploration of foundational public health by examining public health challenges at local, national, and global levels, and current strategies for advancing population health. Analysis of current public health issues and modern public health policies and practices. May be concurrently scheduled with course C201. Letter grading.

185A. Public Health Capstone I. (4) Seminar, three hours; discussion, one hour. Limited to Public Health majors. Enrollment by consent of school. Culminating experience for students to apply acquired content, knowledge and skills to public health problem or issue. Students bring accumulated public health knowledge, skills, and experience to individual or group project theme that is approved by instructor. Required weekly written assignments, participation in review and discussion of other students’ work, and development of scope of work and outlines what is to be completed in course 185B. In Progress grading (credit to be given only on completion of course 185B).

185B. Public Health Capstone II. (4 Seminar, three hours; discussion, one hour. Enforced requisite: course 185A. Students continue independent, or group work related on theme developed in course 185A. Students share in-progress work and continue to receive guidance from instructor and peer feedback. Students participate in school-sponsored poster session by presenting project outcomes to school and campus community. Letter grading.

188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SB. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: course 188SA. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to finalze course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced corequisite: course 188SB. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE 88S course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

195CE. Community and Corporate Internship in Public Health. (4) Tutorial, to be arranged. Work, eight to 10 hours. Limited to Public Health minors. Internship in corporate, governmental, or nonprofit setting coordinated through Center for Community Engagement. Students complete weekly written assignments, attend biweekly meetings with graduate student coordinator, and write final research paper. Faculty of record and graduate student instructor construct series of reading assignments that examine issues related to working in field of public health. Individual contract with supervising faculty member required. Letter grading.


198. Honors Research in Public Health. (4) Tutorial, one hour. Limited to Public Health majors or minors. Development and completion of honors thesis or comprehensive research project under direct supervision of faculty member. May be repeated for credit. Individual contract required. Letter grading.

199. Directed Research in Public Health. (4) Tutorial, one hour. Limited to Public Health majors or minors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. Letter grading.

Graduate Courses
2004-2008. Foundations in Public Health. (3-5) Lecture, seven hours; discussion, one hour. Introduction to foundational concepts, definitions, historical milestones, and methods related to five core disciplines of public health. Using traditional lecture presentations, active-learning case-based classroom discussions, lab sessions, and community projects, students learn essential knowledge about public health as well as skills needed to be effective public health professionals including oral and written presentation skills for relevant audiences, data analytic and presentation skills, and multidisciplinary team-building skills working with students from throughout school of public health. Letter grading.

C201. Fundamentals of Public Health. (4) Lecture, four hours; discussion, one hour. Limited to school of public health graduate students. Exploration of foundations of public health by examining public health challenges at local, national, and global levels, and current strategies for advancing population health.
Analysis of current public health issues and modern public health policies and practices. May be concurrently scheduled with course C150. Letter grading.

**M273. Responsible Conduct of Research in Global Health** (Same as Epidemiology M273.) Lecture, two hours. Requisite: Community Health Sciences 200. Introduction to fundamental principles of public health ethics, current ethical procedures, guidelines, and requirements, and ethical issues facing public health professionals working in developing countries. History of public health issues, unique ethical issues of research in developing countries, analysis of ethical implications of informed consent, responsibility to study community, mechanisms of study approval, role of funders, and role and responsibilities of review boards. S/U or letter grading.

**299. Strategies for Success for Doctoral Students.** (2) Seminar, two hours. Interactive seminar, with focus on research process, tips for success in academia, and important tools for leadership designed for all doctoral students in School of Public Health. S/U grading.

**375. Teaching Apprentice Practicum.** (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

**401. Public Health as Profession.** (4) Lecture, four hours. Limited to Fielding School of Public Health graduate students. Introduction to interprofessional collaboration, team building, leadership, communication, cultural humility, and implicit bias, while supporting professional development and growth of Master of Public Health (MPH) students. Focus on development of strong collaborative skills with opportunities to practice benefiting students entering public health workforce. MPH students participate in systems-based health-care course with dental, medical, and nursing students. Letter grading.

**475. Pedagogy: Essential Skills and Innovative Strategies.** (2) Seminar, two hours. Designed for School of Public Health doctoral students. Interactive seminar with focus on developing teaching materials for courses and acquisition of skills and tools that help students to become successful and innovative instructors. Active learning methodologies and competencies-based approach to instruction. S/U or letter grading.

**490. Public Speaking Mastery for Public Health Professionals.** Lecture, two hours. Lectures with in-class exercises, or in-class presentations followed by coaching feedback. Topics focus on developing range of communication skills necessary for students to become confident and effective public speakers. Master’s and doctoral students in programs housed in School of Public Health who are interested in learning how to prepare and deliver impactful, compelling presentations with confidence and professionalism are encouraged to enroll. S/U or letter grading.

**495. Preparation for Teaching Public Health.** (2) Seminar, two hours. Designed for graduate students. Prepares individuals who will serve as teaching assistants for courses in Fielding School of Public Health. Study of methodologies in teaching public health, including implementing active learning strategies, effectively communicating goals for student learning, developing course materials that are consistent with expectations for student learning, creating inclusive teaching environment, and dealing with difficult situations. S/U or letter grading.

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**PUBLIC POLICY**

**Meyer and Renee Luskin School of Public Affairs**

3250 Public Affairs Building
Box 951656
Los Angeles, CA 90095-1656

**Public Policy**

310-825-7667

**Department e-mail**

Mark A. Peterson, PhD, **Interim Chair**

**Faculty Roster**

**Professors**

- Martin I. Gilens, PhD
- Neal Halffon, MD, MPH
- S. Jody Heymann, MD, PhD
- Susanne Lohmann, PhD
- Megan Mullin, PhD (Meyer and Renee Luskin Endowed Professor of Innovation and Sustainability)
- Aaron L. Panofsky, PhD
- Mark A. Peterson, PhD
- Thomas H. Rice, PhD
- Gary M. Segura, PhD
- Manisha Shah, PhD (Franklin D. Gilliam, Jr. Professor of Social Justice)
- Michael A. Stoll, PhD
- Brian D. Taylor, PhD
- John D. Villañez, PhD
- Lynne G. Zucker, PhD

**Professors Emeriti**

- Albert Carnesale, PhD
- Robert Dallek, PhD
- Franklin D. Gilliam, Jr., PhD
- Arleen Leibowitz, PhD
- Barbara J. Nelson, PhD
- Fernando M. Torres-Gil, PhD
- Charles E. Young, PhD

**Associate Professors**

- Randall K.Q. Akeek, PhD
- Natalie D. Bau, PhD
- Darin E. Christensen, PhD
- Michael C. Lens, PhD
- Meredith Phillips, PhD
- Zachary C. Steinert-Threlkeld, PhD
- Wesley E. Yin, PhD
- J. Christopher Zepeda-Millán, PhD

**Assistant Professors**

- Tierra S. Bills, PhD
- Jasmine D. Hill, PhD
- Emily K. Weisburst, PhD

**Senior Lecturer SOE**

- Kenya L. Covington, MCP, PhD

**Lecturers**

- Michelle Dennis, MPA, CFPO
- Kimberly S. Ling Murtaugh, PhD
- Joseph S. Perman, MPP, PhD
- Steven E. Zipperstein, JD

**Adjunct Professor**

Helmut K. Anheier, PhD

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**Adjunct Assistant Professors**

- Siddharth Kara, MBA, GDL
- Joshua Schank, PhD

**Overview**

The Department of Public Policy is an interdisciplinary unit composed of faculty members from various disciplines, some of whom hold joint appointments in other UCLA departments. Its goal is to foster an understanding of the theory and practice of public policy in the many fields in which it applies. Examples include education, health care, unemployment and training, drug policy and crime, economic development, national security, and the environment. The department offers the Master of Public Policy (MPP) degree and participates in the undergraduate minor in Public Affairs.

**Undergraduate Study**

The undergraduate minor in Public Affairs familiarizes students with key issues in public policy. Both programs have a heavy applied orientation. For additional information on the minor, see the Public Affairs minor.

**Graduate Study**

The MPP degree program is designed to train professionals in both public- and private-sector policy analysis and implementation, and offers coursework in such areas as microeconomics, statistics, political processes, and public and nonprofit management.

Concurrent degree programs allow students to combine study for an MPP with work toward a JD in the School of Law, an MBA in the Anderson Graduate School of Management, an MD in the Geffen School of Medicine, an MPH in the Fielding School of Public Health, or an MSW in the Department of Social Welfare.

**Graduate Major**

**Master of Public Policy**

**Requirements**

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

**Concurrent Degree Programs**

Concurrent degree programs allow students to reduce the number of courses required for two degrees, since some courses may apply to both degrees.

- Master of Public Policy/Doctor of Medicine
- Master of Public Policy/ JD
- Master of Public Policy/Master of Business Administration
- Master of Public Policy/Master of Public Health
10A. Introduction to Public Policy. (5) Lecture, three hours; workshops and outside study, twelve hours. Overview of principal topics of contemporary policy analysis, developing their applications with examples from instructor’s own research, visitors, small student projects, or field trips. P/NP or letter grading.

10B. California Policy Issues. (4) Lecture, three hours; outside study, nine hours. Application of policy analysis to California issues. Guest lectures from practitioners and academics along with readings and videos. Student written reports and oral presentations required. Letter grading.

10C. Public Policy for Crime, Cannabis, and Other Drugs. (5) Lecture, three hours; outside study, twelve hours. Application of policy analysis, including critical analysis, problem solving, and substantive policy research, to develop knowledge and understanding about drug and crime policy, with focus on cannabis. Guest lectures by instructors and guest academics provide personalized instruction in public policy analysis, to California issues. Guest lectures from local policymakers. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students as assigned as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors and departmental honors programs. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. Consult Undergraduate Research Center. May be repeated. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours, per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

105. Leadership in Public Interest. (4) Lecture, three hours. Examination of prevailing models, theories, and practices of leadership in public settings and application of them through case studies, films, and situational articles. Participation in group projects and discussions designed to improve understanding of role of leadership in mobilizing people groups to do difficult work. Introduction to theory and theory on leadership, examination of leadership and group dynamics, and challenge of leadership in times of stress and change. Letter grading.

112. Politics of U.S. Health Policy. (4) Lecture, three hours. Every modern nation faces similar health system challenges, such as promoting health and longevity, providing effective treatments, balancing benefits and burdens of medical technology, and controlling healthcare costs that grow faster than national income. U.S. seems uniquely disadvantaged with lower life expectancy, problematic quality of medical services, lack of millions, and highest costs in world, hampering families, businesses, and government. What political dynamics produced this result and influence possibility and direction of ongoing policy change? Examination of meaning of health and health care system; current status, organization, and financing of U.S. health-care system; and factors that affect national health policies. C213. Health and Medicine in Modern Society: Framing of problems, role of public opinion, influence of interest groups, competition and organization of Congress, and opportunities for and applications of presidential leadership. P/NP or letter grading.


M120. Race, Inequality, and Public Policy. (4) (Same as African American Studies M1520) Lecture, three hours; discussion, one hour. Background in economics, sociology, or urban studies preferred but not required. Survey course to examine major debates and current controversies concerning public policy responses to social problems in urban America. Letter grading.

CM126. Data Analysis for Educational Equity and Improvement. (4) (Same as Public Affairs M171D) Lecture, three hours. Requisite: Public Affairs 60. Exploration of challenge of making data useful for decision-making from cleaning data and deciding which analyses to conduct; to conducting those analyses carefully, thoughtfully, and in reproducible way; to displaying results, interpreting them, and communicating them clearly. Focus on challenge of making survey data useful to educators so that they can use those data to influence the school and district policies and practices and, ultimately, use information to improve students’ school experiences. Concurrently scheduled with course CM226. Letter grading.

M127. Understanding Public Issue Life Cycle. (4) (Same as Political Science M142D) Lecture, three or four hours; discussion, one hour (when scheduled). Recommended preparation: Political Science 10, 40, and one course from courses 15, 11, or 101. Examination of how public issues life cycle is shaped by (1) economic and political incentives of various actors—business, news media, mass public, organized interests, Congress, state and regulatory agencies, and courts and (2) ideology, cognitive biases, and ethical reasoning. P/NP or letter grading.

C135. Crime and Public Policy. (4) Seminar, three hours. Crime is one of most costly social problems faced by societies across world. Examination of crime trends, criminogenic factors that influence them, and policy initiatives that influence them, largely in U.S. context. Criminal justice policy community is increasingly focused on best and evidence-based practice, and often derives inspiration and policy recommendations from existing empirical research. Focus on basic empirical and theoretical research on determinants of crime, offending, and effects of policies and policies interventions meant to address criminal offending. Concurrently scheduled with course C235. Letter grading.

CM171. International Development. (4) (Same as Economics M112A) Lecture, three hours. Requisites: Economics 102 or 111. Why are some countries rich, while other countries are poor? What can policymakers do to reduce the current level of current research on these questions. Study of both methodologies used to answer questions in development economics, like natural experiments and randomized control trials, as well as political economy between developing countries and institutions, education, growth, culture, and gender. Reading intensive, seminar-style course. Students are expected to read academic articles in economics and actively participate in discussions. Students also learn how to use data to evaluate policies. Concurrently scheduled with course C271. P/NP or letter grading.

CM175. Advanced Technology: Public Policy, Regulation, and Law. (4) (Same as Public Affairs M165) Lecture, three hours. Examination of cutting-edge public policy and regulatory implications of advanced technologies such as artificial intelligence, drones, autonomous vehicles, blockchain/bitcoin, etc. Exploration of whether and how these new technologies should be regulated. Exploration of how policymakers should balance need to promote investment and innovation against need to protect against potential misuse and abuse of these new technologies. Exploration of many issues raised by these technologies such as privacy, national security, network neutrality, intellectual property rights, and more. Concurrently scheduled with course C275. Letter grading.

CM177. Network Science Using R. (4) (Same as Public Affairs M171B) Lecture, three hours. Three prior knowledge of R required. Designed for juniors and seniors. This course offers framework for understanding how relationships between people, places, and institutions affect public policy outcomes. For example, why individuals decide to protest or vote, amount of education or police force, or even how they may have been influenced by social networks. Game on influence in social networks, to develop skills in network science and expertise by considering three overlapping themes: social conditions that affect production of scientific knowledge, debates about expertise and democracy in technical and policy decision-making, and current controversies about expertise and autonomy of science (e.g., conflicts of interest in funding of biomedical research and recent charges of politicization of science). Concurrently scheduled with course C283. Letter grading.

C183. Science Policy and Expertise. (4) Lecture, three hours. Introduction to social analysis of science and expertise by considering three overlapping themes: social conditions that affect production of scientific knowledge, debates about expertise and democracy in technical and policy decision-making, and current controversies about expertise and autonomy of science (e.g., conflicts of interest in funding of biomedical research and recent charges of politicization of science). Concurrently scheduled with course CM282. Letter grading.

C185. Science Policy and Expertise. (4) Lecture, three hours. Introduction to social analysis of science and expertise by considering three overlapping themes: social conditions that affect production of scientific knowledge, debates about expertise and democracy in technical and policy decision-making, and current controversies about expertise and autonomy of science (e.g., conflicts of interest in funding of biomedical research and recent charges of politicization of science). Concurrently scheduled with course C283. Letter grading.

187. Research Seminar: Public Policy. (4) Seminar, three hours; outside study, nine hours. Requisite: course 10A or Public Affairs 10. Limited to and required of seniors in Public Affairs minor. Production of research project that examines in depth one particular policy issue in its social context, including political pressures involved and problems of implementation. Emphasis on skills of data acquisition, analysis, conceptualization, and written analysis and presentation. Letter grading.

188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enrolled corequisite: Honors seminar in 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.
201. Principles of Microeconomic Theory 1. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. First course in two-term sequence (see course 204) to prepare students for economic analysis of public policy, with review of economic principles and basic microeconomic theory and policy applications. Consumer theory and demand, producer theory and supply, equilibrium of product and factor markets. Letter grading.

201A. Microeconomic Analysis for Public Health and Policy. (4) (Same as Health Policy M203A.) Lecture, four hours. Requisites: Mathematics 3A or 3B or 113, Economics 11A or 11B. Concepts of microeconomics, with emphasis on their application to actual situations and their use in problem solving and focus on theory of choice. Extensive use of differential calculus. Letter grading.

202. Political Economy of Development. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Designed to provide background necessary to develop strategies for shaping policy through different institutional means: legislatures, bureaucracies, courts, and media. Consideration of models of decision-making and delegation and their application to real-world cases. Letter grading.

203. Statistical Methods of Policy Analysis I. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. First course in two-term sequence (see course 208). Review of statistical principles useful to policy research and analysis. Topics include descriptive statistics, expectation, univariate and multivariate distribution, probability, covariance and correlations, statistical independence, random sampling, estimators, unbiasedness and efficiency, statistical inference, confidence intervals, and hypothesis testing. Letter grading.

204. Principles of Microeconomic Theory II. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Requisite: course 201. Second course in two-term sequence (see course 201) covering both theory and policy applications. Topics include monopoly, factor markets, general equilibrium, welfare economics, externalities, public goods, uncertainty, and intertemporal optimization. Letter grading.

204A. Microeconomic Analysis for Public Health and Policy. (4) (Same as Health Policy M203B.) Lecture, four hours. Requisites: course 201A, and one course from Mathematics 3A, 3B, or 31A. Basic concepts of three hours; discussion, one hour; outside study, eight hours. Requisite: course 201. Second course in two-term sequence (see course 201) covering both theory and policy applications. Letter grading.

205. Qualitative Methods for Policy Analysis. (4) Lecture, three hours; introduction to use of qualitative methods in policy analysis. Students gain exposure to techniques of interviewing, participant observation/ethnography, comparative-case studies, and archival research. Consideration of research design matters including questions and situations for which qualitative methods are ideally suited, and how to use qualitative data when they are best available. Focus maintained on ethnographic qualitative methods and policy research including sampling and inferences, instrument design, directed inductive analysis, data gathering and coding under time pressure, and professional ethics. Letter grading.

206. Political Economy of Policy Adoption and Implementation. (4) Lecture, three hours; outside study, nine hours. Analysis of how policy is formed, adopted, and implemented. How policies are formulated, by whom, how policy agendas are set, how to define relationships between politicians, bureaucrats, lobbyists, and media experts. Letter grading.


209. Management in the 21st Century. (4) Lecture, three hours; outside study, nine hours. Focus on practical management skills to prepare students for work-place, entrepreneurial, and leadership of teams in organizational settings, decision-making strategies in face of challenges, and negotiation as invaluable skill. Examples from public and private sectors, as well as experiential learning through exercises, cases, and simulations. Letter grading.

210. Methods of Policy Analysis. (4) Lecture, three hours; discussion, one hour; outside study, nine hours. Preparatory course that precedes three-term sequence 298A, 298B, 298C sequence in which students prepare major public policy projects and papers that are case studies of policy evaluation and implementation and are equivalent to professional master’s theses. Papers build on prior core courses, internship experience, and policy-related work. Letter grading.

212. Child Welfare Policy. (4) (Same as Social Welfare M290J.) Lecture, three hours. Development of social policy as it affects families and children from different cultural backgrounds and as it is given form in policy. Child welfare policy as conduit of development of infrastructure to support needs of children and families. S/U or letter grading.

213. Mental Health Policy. (4) (Same as Social Welfare M290K.) Lecture, three hours. Examination of evolution of social policies for mentally ill, with emphasis on political, economic, ideological, and sociological factors that affect views of mentally ill and services they are provided. S/U or letter grading.


215. Health Policy. (4) (Same as Social Welfare M290M.) Lecture, three hours. Introduction to contemporary issues in healthcare financing and delivery, providing historical perspective on emergence of these issues. Examination of major public programs and their relationship to issues of access and cost. S/U or letter grading.

216. Public Policy for Children and Youth. (4) (Same as Social Welfare M290N.) Lecture, three hours. Policy issues that affect children and youth and their families in relation to their interaction with schools and communities, with emphasis on impact of policy across federal, state, and local levels. S/U or letter grading.

217. Graduate Seminar in Environmental Economics and Policy. (4) (Same as Health Sciences M217.) Seminar, four hours. Preparation: under-graduate-level statistics, basic undergraduate microeconomics. Introduction to applied scholarship in environmental economics. Engages students to become more proficient consumers and producers of social science research that explores questions of environmental policy and sustainability broadly constructed. Topics include health and economic impacts of climate change, adaptation to climate change, efficient and equitable design of environmental policies (e.g., cap and trade, carbon taxes). Development of detailed student research proposal and short presentation. Letter grading.

218. Research Design and Methods for Social Policy. (4) (Same as Urban Planning M204.) Lecture, three hours; outside study, nine hours. Limit to graduate students. How to become more sophisticated consumers and producers of qualitative and quantitative policy research. In first half of course, formal principles of research design; in second half, various data collection methods, including ethnography, interviewing, and survey design. Letter grading.

220. Transportation, Land Use, and Urban Form. (4) (Same as Urban Planning M250.) Lecture, three hours. Historical evolution of urban form and transportation systems, intrametropolitan location theory, recent trends in urban form, spatial mismatch hypothesis, jobs/housing balance, transportation in strong central cities and polycentric city, neotraditional town and urban form, transit finance; current issues in highway finance; private and public child welfare system. Examination of development of public child welfare system. Examination of development of Social Welfare M290L and Urban Planning M246E.) Lecture, three hours. Major policy and research issues concerning poverty and social welfare policy directed toward poor in U.S. S/U or letter grading.

221. Travel Behavior Analysis. (4) (Same as Civil Engineering M287 and Urban Planning M283.) Lecture, three hours. Requisites: courses 201 or 201A, and 203, or Urban Planning 207 and 220B. Descriptions of travel patterns in metropolitan areas, recent trends and projections into future, overview of travel forecasting methods, trip distribution, mode split traffic assignment, critique of traditional travel forecasting methods and new approaches to travel behavior analysis. Letter grading.

222. Transportation, Land Use, and Urban Form. (4) (Same as Urban Planning M250.) Lecture, three hours. Overview of transportation finance and economics; concepts of efficiency and equity in transportation finance; historical evolution of highway and transit finance; current issues in highway finance; pri-
vate participation in road finance, toll roads, road costs and cost allocation, truck charges, congestion pricing; current issues in transit finance; transit fare and subsides and the privatization and privatization of transit services. Letter grading.

M223. Transportation and Climate Change. (4) (Same as Urban Planning M258.) Lecture, three hours. How to reduce greenhouse gas emissions from transportation. Topics to include greenhouse economy, promote electric vehicles, and reduce vehicle travel. History and legal frameworks of environmental regulation. Analytical methods to quantify carbon emissions and estimating emissions reductions. Focus on climate change, but consideration of other environmental consequences of transportation, from air pollution to stormwater runoff. Letter grading.

224A. Introduction to Geographic Information Systems. (4) Lecture, three hours. Preparation: one graduate-level statistics course, familiarity with one packaged statistics program. Principles of Geographic Information Systems (GIS) and applied techniques of using spatial data for mapping and analysis. Topics include data quality, data manipulation, spatial analysis, and information systems. Use of mapping and spatial analysis to address planning problem. Letter grading.


225. Education Policy and Education Inequality. (4) Seminar, three hours; outside study, nine hours. Preparation: statistics background through multiple regression analysis. Limited to graduate students. Examination of the role of education in reducing socioeconomic and ethnic disparities in educational success. Topics include international and national comparisons of educational outcomes, private and public school choice, school accountability and school interventions to improve school or teacher quality, parenting and pre-school interventions, and supplemental educational services. Letter grading.

226. Data Analysis for Educational Equity and Improvement. (4) Lecture, three hours; outside study, nine hours. Preparation: College 160. Exploration of challenge of making data useful for decision-making from cleaning data and deciding which analyses to conduct; to conducting those analyses carefully, thoughtfully, and in reproducible way; to displaying results, interpreting them, and communicating them clearly. Focus on challenge of making survey data useful to educators so that they can use this data to make decisions on school and district policies and practices and, ultimately, use information to improve students’ school experiences. Concurrently scheduled with course CM126. Letter grading.

227. Power, Politics, and Vulnerability: Introduction to Social Welfare and Public Policy (Same as Social Welfare M290S and Urban Planning M287.) Lecture, three hours; outside study, nine hours. Use of political economy perspective to analyze forces that have shaped rise and characteristics of nonprofit sector and its constituent elements. Examination of social history of nonprofit sector in U.S. Exploration of legal and policy environments and distinct organizational forms. Comparative perspective between U.S. and other countries. S/U or letter grading.


M229. Law and Management of Nonprofit Organizations. (4) (Same as Management M225.) Lecture, three hours. Introduction to important legal, financial, and management issues confronting nonprofits. Topics include start-up and tax-exempt organizations, qualifying and maintaining tax-exempt status under IRC Code Section 501(c)(3), corporate governance, activity limitations, internal control, restrictions, and strategic planning, fundraising, nonprofit accounting, and employment law. S/U or letter grading.

M230. Immigration Policy and Activism. (4) (Same as Chicana/o and Central American Studies M278.) Seminar, three hours. Highlighting roles of race, gender, sexuality, and citizenship status, exploration of how immigrant rights activists organize for legalization and against detention, deportation, and border militarization. Letter grading.

M231. Politics of Hood. (4) (Same as Chicana/o and Central American Studies M206.) Seminar, three hours. Limited to graduate students. Study of research on shifting political identities and experiences of people within hood. Preface and examination of critical problems impacting people who live in hood including poverty, incarceration, gentrification, welfare, public education, health disparities, and segregation, among other political issues. S/U or letter grading.

M232. Chicana/o and Intersectional Marxism. (4) (Same as Chicana/o and Central American Studies M257.) Seminar, three hours. Examination of relationship between Chicana/o intellectual identity, creativity, and early Chicana/o Marxist influenced intellectual thought. Focus on key debates and texts on connections between race, gender, sexuality, and capitalism. Review of key articles and books examining Chicana/o identity, labor, family, sexuality, and activism through Marxist theoretical framework. S/U or letter grading.

233. Immigration Policy and Politics. (4) Seminar, three hours. Introduction to policies of immigration. Examination of development and dynamics of immigration policymaking in historical and contemporary perspective. Focus on issues including creation of illegal immigration, border militarization, detention, deportation, public affairs, political behavior, and assimilation. Letter grading.


234B. Voting Rights Policy and Law II. (4) (Formerly numbered M296B.) Clinic, three hours. Requisite course 234A. Collaborative course taught from perspective of social science research, civic rights, and voting rights. Exposes students to voting rights act theory, case law, history, research, and implementation. Faculty guest experts will provide their perspective on how to study, research, and document various aspects related to voting rights. Includes factors such as history of discrimination against minority group in areas of employment, education, housing, and political representation. Focus on practical aspects of voting rights laws. Students learn in greater detail legal theory relevant to bringing successful voting rights challenges, and how to assemble and present social science evidence. Students read case law on prior Voting Rights Acts decisions, review accompanying expert reports, and work in teams on aspects of lawsuit. S/U or letter grading.

234C. Voting Rights Policy and Law III. (Formerly numbered M296C.) Clinic, three hours. Requisites: courses 234A, 234B. Collaborative course taught from perspective of social science research, civic rights, and voting rights. Exposes students to voting rights act theory, case law, history, research, and implementation. Faculty guest experts will provide their perspective on how to study, research, and document various aspects related to voting rights. Includes factors such as history of discrimination against minority group in areas of employment, education, housing, and political representation. Students continue work on all aspects of voting rights cases including preparation of expert research reports, legal argumentation and filings, depositions, and other case-related matters. S/U or letter grading.

C235. Crime and Public Policy. (4) Seminar, three hours. Crime is one of most costly social problems faced by societies across world. Examination of crime trends, criminogenic factors that lead to crime, and policy initiatives that influence, largely in U.S. context. Criminal justice policy community is increasingly focused on best and evidence-based practice, and criminal justice implications in development from existing empirical research. Focus on basic empirical and theoretical research on determinants of criminal offending and effectiveness, and effects of policy interventions meant to deter or reduce criminal offending. Concurrently scheduled with course C135. Letter grading.

236. Criminal Justice Policy on Trial. (4) Seminar, three hours. Survey of several criminal justice policy areas including labor market effects of incarceration, bias in policing and sentencing, cash bail, and drug policy. Introduction to recent research. Students engage in discussions about critical issues. Includes factors such as history of discrimination against minority group in areas of employment, education, housing, and political representation. Focus on practical aspects of voting rights laws. Students learn in greater detail legal theory relevant to bringing successful voting rights challenges, and how to assemble and present social science evidence. Students read case law on prior Voting Rights Acts decisions, review accompanying expert reports, and work in teams on aspects of lawsuit. S/U or letter grading.

237. Urban Planning M231.) Lecture, three hours; outside study, nine hours. Preparation: principles of social welfare and urban planning. Examination of key debates and texts on connections between race, gender, sexuality, and capitalism. Review of key articles and books examining Chicana/o identity, labor, family, sexuality, and activism through Marxist theoretical framework. S/U or letter grading.

238. Changeways: Algorithms and Transport. (4) (Formerly numbered M238A.) Seminar, three hours. Examination of role of technology in contemporary urban transport systems. Topics include how to start nonprofit tax-exempt organizations. Letter grading.

239. Law and Management of Nonprofit Organizations. (4) (Same as Chicana/o and Central American Studies M278.) Seminar, three hours. Examination of relation between Marxist, intersectionality, and early-Chicana/o influenced intellectual thought. Focus on key debates and texts on connections between race, gender, sexuality, and capitalism. Review of key articles and books examining Chicana/o identity, labor, family, sexuality, and activism through Marxist theoretical framework. S/U or letter grading.

240. Theories of Regional Economic Development I. (4) (Same as Geography M230A and Urban Planning M236A.) Lecture, three hours; discussion, one hour. Introduction to theories of location of economic activity, trade, and other forms of contact between regions, process of regional growth and decline, reasons for different levels of economic development, relations between more and less developed regions. Letter grading.

241. Introduction to Regional Planning. (4) (Same as Urban Planning M236L.) Lecture, three hours. Critical and historical survey of evolution of regional planning theory, practice, and planning and the ways in which these roles affect relations between regional planning and development within Western social and political philosophy. Major concepts include regions and regionalism, territorial community, and social production of space. Letter grading.

242. Community Development and Housing Policies: Roles of State, Civil Society, and Nonprofits. (4) (Same as Social Welfare M280U and Urban Planning M275J.) Lecture, three hours; outside study, nine hours. Designed for graduate students. Examination of role of U.S. housing policy and role of government agencies and community organizations in problem of housing or economic development? Should interventions be directed toward inner city housing markets or through neighborhood strategies? What lessons can be learned from experiences of other countries? Letter grading.

243B. Housing Policy and Planning. (4) (Same as Urban Planning M296.) Lecture, three hours. Study of housing policy and planning focused partly on California and partly on the consideration of experiences from other states and countries and to what extent they are relevant here. Specific topics likely include policies such as social housing, rent control, and housing finance, issues of household formation, housing supply, housing submarkets, and gentrification, as well as planning processes related to housing production and Affirmatively Furthering Fair Housing. Letter grading.
M244. Shared Mobility Policy and Planning. (4) (Same as Urban Planning M255.) Lecture, three hours. Introduction to planning, analysis, and management of shared mobility, with particular focus on public transit. Overview of shared mobility policy and planning context; introduction to transportation planning and project evaluation processes; high-speed rail and airports and aviation; public transit policy and planning; bicycle- and scooter-share; implications of vehicle automation; shared mobility in the years ahead. Letter grading.

M247B. Comparative Perspective on States, Markets, and Civil Society. (4) (Same as Social Welfare M240X and Urban Planning M210B.) Lecture, two and one half hours. Focus is on understanding how aging societal problems, such as climate change, poverty, migration, security, mobility, pollution, or trade relations. Contemporary governance is complex set of laws, rules, and regulations involving rights and responsibilities of three institutional complexes of modern societies (state, market, and civil society), interests that guide them, and legitimacy and resources they command. Actors often reach across institutional, jurisdictional, and national boundaries; their relationships can be cooperative, neutral, or fraught with conflict, and governance outcomes can vary significantly. These dynamics involve fundamental challenges that, consequently, require significant governance readiness. Lectures, debates, in-class exercises, and student presentations. Exploration of several issues in more depth. Topics include state capacities, democracy, crisis management, governance innovation, and specific policy fields such as infrastructure or global finance. S/U or letter grading.

CM250. Economic Principles and Economic Development. (4) Lecture, three hours. Requisites: courses 204 and 208, or Urban Planning 207 and 220B. Survey of ways economics is used to define, analyze, and resolve problems of allocation. Overview of analytical questions addressed by environmental economists that bear on public policies. Concurrently scheduled with course C115. Letter grading.

251. Public Budgeting and Finance. (4) Lecture, three hours; outside study, nine hours. Limited to graduate students. How financial resources are allocated through budget processes at federal, state, and local level of governments in the U.S. and how each level of government finances its operations and capital investment programs, with particular attention to California. Students are organized into small groups to facilitate review of assigned readings and to report key insights. Students strengthen critical analysis of empirical data to evaluate policies. Concurrently scheduled with course C115. Letter grading.

C171. International Development. (4) (Same as Urban Planning M262B and Policy and Management M267.) Lecture, two hours. Focus is on understanding how development and institutional structures in each of these sectors advance or constrain progress; how Los Angeles addresses issues such as transportation, real estate development, affordable housing, homelessness, poverty, and health care, among others; and how it can better do so. Letter grading.

M253. Lesbian, Gay, Bisexual, and Transgender Law and Public Policy Research. (4) (Same as Law M2675.) Lecture, three hours. In-depth examination of the social science research that has informed various areas of LGBT law. Themes include doctrinal and other reasons why research has become more central to LGBT legal advancements in past decade, different types of public policy research, limitations of current data and research, and research gaps in transnational social science research into evidence in courtroom, imp- pact that dominant LGBT rights frame of equality has on social science research, challenges in conducting objective research, and effective presentation of social science research findings to non-academic juries, media, and other audiences. S/U or letter grading.

M256. Politics of Health Policy. (4) (Same as Community Health Sciences M257 and Health Policy and Management M258.) Lecture, three hours; discussion, one hour. Examination of politics of health policy process through analysis of case studies such as environmental protection, pandemic preparedness and response, preventive health services for women, and racial and economic inequality and health. Examination of framework for how policy making and effects of political structure and current political divisions, including efforts such as to repeal and dismantle Affordable Care Act. Letter grading.

M265. Pharmaceutical Policy. (4) (Same as Policy M259.) Lecture, three hours; outside study, nine hours. Designed for graduate students. Analytical and managerial skills learned earlier to be used to analyze problems with existing Medicare program and to develop specific policy strategies of short-term plan to accommodate coming pressures generated by retire- ment of baby-boom generation. Letter grading.

M268. Microeconomic Theory of Health Sector. (4) (Same as Health Economics, hours, discussion, two hours. Preparation: intermediate microeconomics. Microeconomic aspects of health-care system, including health manpower substitution, choice of efficient modes of treatment, market eficiency, and competition. Letter grading.

M269. Healthcare Policy and Finance. (4) (Same as Health Policy M269.) Seminar, three hours; outside study, nine hours. Exploration of demand for health in- surance, policies for public insurance (Medicaid and Medicare), uninsured, and health insurance reform. Examination of effects of managed care on health and costs, consumer protection movement, and rise of competitive health care grading.

M270. Economic Principles and Economic Development in Indigenous Communities. (4) (Same as American Indian Studies M269.) Seminar, two hours; discussion, one hour. Limited to graduate students. Familiarization with fundamental concepts, themes, and principles of economic development. Focus on in- digenous communities broadly and contrasted with other regions, countries, and communities. Introdu- cion to important concepts such as opportunity cost, economic trade-offs, adverse selection, moral hazard, and discount rates through use of existing research and case studies. These basic concepts are important for graduate students who will be analyzing and evalu- ating research conducted on and for indigenous peo- ple and governments. S/U or letter grading.

C171. International Development. (4) Lecture, three hours; outside study, nine hours. Focus is on understanding how development and institutional structures in each of these sectors advance or constrain progress; how Los Angeles addresses issues such as transportation, real estate development, affordable housing, homelessness, poverty, and health care, among others; and how it can better do so. Letter grading.

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M280A. Research and Development Policy. (4) (Same as Management-PhD M251.) Lecture, three hours. Examination of research and development process and as element of goal-oriented organization. Factors affecting invention and innovation; transfer of technology; organizational and behavioral considerations; coupling of science, technology, and organizational goals; assessing of and forecasting technology; organizational and behavioral considerations. Concurrently scheduled with course CM179. Letter grading.

M280B. Growth, Science, and Technology. (4) (Same as Management M292B.) Lecture, three hours. Examination of research and development process and as element of goal-oriented organization. Factors affecting invention and innovation; transfer of technology; organizational and behavioral considerations; coupling of science, technology, and organizational goals; assessing of and forecasting technological futures. S/U or letter grading.

M291C. Special Topics in Public Affairs. (4) (Same as Social Welfare M203X and Urban Planning M210A.) Seminar, three hours; outside study, nine hours. Advancement of seminar on emerging issues across public policy, social welfare, and urban planning. May be repeated for credit. Credit/No Credit grading. Concurrently scheduled with course CM191B. S/U or letter grading.

C279. Social Movements in Theory and Practice. (4) Lecture, three hours. Social movement is group of people pressuring for political or social change over long periods of time. Study focuses on how mass movements form, when and where they are likely to form, what types of tactics they choose, how those tactics affect their success, and role new technologies play. Weekly focus on one specific topic, such as non-violence or social media, with historic and more recent movements used in discussion. Concurrently scheduled with course CM177. Letter grading.

M297A. Public Policy Special Topics. (2) Lecture, three hours. Study of emerging issues in public policy. May be repeated for credit. S/U grading.


C291G. Special Topics in Global Studies and Public Policy. (4) Seminar, three hours. Examination of one or more topics related to public policy and global studies. May be repeated for credit with topic change. Concurrently scheduled with course CM191B. S/U or letter grading.


M297P. Public Policy Seminar Series. (2) (Formerly numbered 297C.) Seminar, two hours. Preparation: membership in MPP core curriculum, two policy cluster courses, and internship (unless waived). Requisite: course 298B. Fourth course in four-course sequence in which students prepare major public policy projects and papers that are case studies of policy evaluation and implementation and are equivalent to professional master's theses. Papers build on prior core courses, internship experience, and policy cluster courses. Conclusion of written report started in course 298B. Letter grading.

M298D. Applied Policy Project IV. (2) (Formerly numbered 298C) Seminar, two hours. Preparation: completion of MPP core curriculum, two policy cluster courses, and internship (unless waived). Requisite: course 298B. Fourth course in four-course sequence in which students complete research and report writing for their year-long projects, conduct oral presentations of their applied policy projects, and give written feedback on other student presentations. Letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

496. Public Policy Internships. (4) Fieldwork, four hours. Public policy internships for Master of Public Policy (MPP) and MPP/dual degree students. May not be repeated for credit. S/U grading.

596. Directed Studies. (2 to 8) Tutorial, to be arranged. Limited to graduate students. Individual programming for selected students to permit pursuit of a subject in greater depth. S/U or letter grading.

RADIATION ONCOLOGY

David Geffen School of Medicine
B265 UCLA Morton Medical Building
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Radiation Oncology
310-825-9775

Michael L. Steinberg, MD, FASTRO, FACR, Chair
Minsong Cao, PhD, DABR, FAAPM, Vice Chair, Academic Mission Development
James M. Lamb, PhD, Vice Chair, Division of Medical Physics
Nicholas G. Nickols, MD, PhD, Vice Chair, VA Services

maps). Students become proficient in programming concepts through weekly problem sets, completed in groups. S/U or letter grading.

C277. Network Science Using R. (4) Lecture, three hours. Preparation: course 210. Design for graduate students. Network analysis offers framework for understanding how relationships between people, places, and institutions affect public policy outcomes. For example, when people decide to protest or vote, amount of education they pursue, or effect of human interference in ecosystem can all be considered using network analysis. Weekly introduction of concept from network analysis, followed by working through it using popular statistical programming language R. Concurrently scheduled with course CM177. Letter grading.

C279. Social Movements in Theory and Practice. (4) Lecture, three hours. Social movement is group of people pressuring for political or social change over long periods of time. Study focuses on how mass movements form, when and where they are likely to form, what types of tactics they choose, how those tactics affect their success, and role new technologies play. Weekly focus on one specific topic, such as non-violence or social media, with historic and more recent movements used in discussion. Concurrently scheduled with course CM177. Letter grading.

M280A. Research and Development Policy. (4) (Same as Management-PhD M251.) Lecture, three hours. Examination of research and development process and as element of goal-oriented organization. Factors affecting invention and innovation; transfer of technology; organizational and behavioral considerations; coupling of science, technology, and organizational goals; assessing of and forecasting technology; organizational and behavioral considerations. Concurrently scheduled with course CM179. Letter grading.

M280B. Growth, Science, and Technology. (4) (Same as Management M292B.) Lecture, three hours. Examination of research and development process and as element of goal-oriented organization. Factors affecting invention and innovation; transfer of technology; organizational and behavioral considerations; coupling of science, technology, and organizational goals; assessing of and forecasting technological futures. S/U or letter grading.

M291C. Special Topics in Public Affairs. (4) (Same as Social Welfare M203X and Urban Planning M210A.) Seminar, three hours; outside study, nine hours. Advancement of seminar on emerging issues across public policy, social welfare, and urban planning. May be repeated for credit. S/U or letter grading.


C291B. Variable Topics Seminar: Public Policy. (4) Seminar, three hours. Examination of emerging issues in public policy. May be repeated for credit. Credit/No Credit grading. Concurrently scheduled with course CM191B. S/U or letter grading.

C291G. Special Topics in Global Studies and Public Policy. (4) Seminar, three hours. Examination of one or more topics related to public policy and global studies. May be repeated for credit with topic change. Concurrently scheduled with course CM191G. Letter grading.

C291A. Public Policy Special Topics. (2) Lecture, three hours. Study of emerging issues in public policy. May be repeated for credit. S/U grading.

C297B. Public Policy Analysis Lectures. (2) Lecture, two hours. Limited to second-year MPP students. Venue for policymakers, practitioners, and academics to present, discuss, and analyze current policy questions. Attending, formally analyzing, and engaging with policy professionals at these lectures adds to pedagogical and intellectual maturity of students as they gain greater understanding of broad range of policy-related topics. S/U grading.

M297C. Current Issues in Public Affairs. (2) (Same as Social Welfare M297B and Urban Planning M297B,) Lecture, one to two hours. Introduction to wide range of current issues in public affairs. Luskin school faculty present material from their research and teaching. Assigned readings are distributed in advance of each meeting. S/U grading.

C297D. Public Policy Student-Initiated Special Topics. (2) Seminar, three hours. Student-initiated and -facilitated special topics on emerging issues in public policy. May be repeated for credit. S/U grading.

M297F. Career Planning and Management. (2) (Same as Social Welfare M297F and Urban Planning M297F,) Tutorial, six hours. Designed to meet professional development needs of first-year Public Policy, Social Welfare, and Urban Planning students. Development of career management skills while balancing busy life of graduate student. More than just deciding on chosen career path, career planning and management involves taking concrete steps to become career ready. Students gain fundamental career management skills to be competitive on job market, including creating competitive résumé and practicing interviewing articulately. Offers opportunity to learn professional development skills that assist with career planning strategies. S/U grading.

297P. Public Policy Seminar Series. (2) (Formerly numbered 297C.) Seminar, two hours; discussion, one hour. Weekly social science research lectures covering range of policy-relevant topics and discussion of research findings with professor. Examination of quality and relevance of research findings and connections between research, public policy curriculum, and real-world policy problems. S/U grading.

298A. Applied Policy Project I. (2) Seminar, 90 minutes; outside study, four and one half hours. Requisite: course 210. Limited to MPP students. First course of year-long sequence designed to ensure that students and their teams are fully prepared to launch their projects at start of Winter Quarter. Students form teams that are assigned to seminars and instructors, identify clients, select and refine policy questions motivating their projects, develop and refine basic work plans, learn about various methods of data collection, and complete and submit all necessary forms required for human subjects research. S/U grading.

298B. Applied Policy Project II. (4) Seminar, three hours; outside study, nine hours. Preparation: completion of MPP core curriculum, two policy cluster courses, and internship (unless waived). Requisite: course 298B. Second course in four-course sequence in which students prepare major public policy projects and papers that are case studies of policy evaluation and implementation and are equivalent to professional master’s theses. Papers build on prior core courses, internship experience, and policy cluster courses. In Progress grading (credit to be given only on completion of course 298C).
Radiology is a four-year program for residents who are medical, dental, basic science (biology and physics), nursing, and radiation therapy students, and community and postgraduate physicians; there also is a four-year program for residents who are qualifying for certification in radiation oncology by the American Board of Radiology.

For more details on the Department of Radiation Oncology and courses offered, see the department website.

Radiation Oncology faculty information is available from the department.

Radiation Oncology

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Course

199. Directed Research in Radiation Oncology. (2 to 8) Tutorial, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper required. May be repeated for credit. Individual contract required. P/NP or letter grading.

RADIOLOGICAL SCIENCES

David Geffen School of Medicine

1638 Ronald Reagan Medical Center
Box 957351
Los Angeles, CA 90095-7351

Radiological Sciences

Residency Program, 310-267-8797
Residency e-mail
Fellowship Program, 310-267-8796
Fellowship e-mail

Dieter R. Enzmann, MD, Chair
Robert D. Suh, MD, Vice Chair, Education

Overview

The Department of Radiology is committed to offering its trainees high-level instruction, unique experience, and comprehensive evaluation necessary to succeed in all systems practicing diagnostic radiology, combining outstanding patient care and excellence in clinical imaging, research, and educational programs with state-of-the-art technology.

The Diagnostic Radiology program currently has 48 resident positions and is conducted at five major teaching hospitals within and associated with the Geffen School of Medicine. Rotating through all five facilities, the resident gains a broad exposure to all types of disorders, both the commonplace and unusual. The 48-month program leads to eligibility for examination and certification by the American Board of Radiology.

The Interventional Radiology Integrated residency program offers quality medical educational experience in image-based diagnosis, image-guided procedures, and peri- and post-procedural patient care. The five-year residency curriculum concentrates on diagnostic radiology during the first three years and interventional radiology during the last two years, leading to dual certification in interventional and diagnostic radiology.

The programs aim to guide residents in attaining mastery of the clinical skills needed to become highly accomplished radiologists. Residents are provided with outstanding and comprehensive education and educational experiences with the purpose of developing advocates for the practice of radiology, who will serve as critical interdisciplinary team members by providing ethical, professional, and valuable medical expertise to patients and colleagues.

For more details on the Department of Radiological Sciences, see the department website.
Undergraduate Major

Study of Religion BA

Capstone Major
The Study of Religion major is a designated capstone major. Students must complete an advanced seminar that provides unique opportunity to work closely with a faculty member on a focused topic of research. Through their capstone work students are expected to demonstrate their ability to plan and carry out a major project, apply subject matter and research methods knowledge to produce a paper or other research project, and organize information into a coherent and persuasive form for oral presentation to their peers.

Learning Outcomes
The Study of Religion major has the following learning outcomes:

• Demonstrated ability to plan a major project that concludes with writing a cogent and convincing document
• Application of knowledge of a wide-ranging bibliography and of methods of research to thoroughly prepare for seriously engaging an interviewee or for writing the prospectus describing the major project
• Development of skills essential to taking oral histories or doing field research in Los Angeles’ multicultural population
• Ability to organize research data into a coherent and persuasive form for oral presentation to peers
• Demonstrated empathy as a critic of a wide array of religious traditions, institutions, and practices

Entry to the Major

Transfer Students
Transfer applicants to the Study of Religion major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one history of religions course, one philosophy of religion course, and two courses from sociocultural anthropology, Buddhism, history of Western civilization, Asian civilizations, civilizations of Africa, and history of China.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major

Required: Study of Religion M4 or 11, and two courses from Ancient Near East 10W, Anthropology 3, Asian M60, History 1A, 1B, 1C, 9A, 9C, 9D, 9E, M10A, 10B, 11A, 11B, Philosophy 2, 21, Study of Religion M10, M50, M60A through M60E, M60W, M61, M61W.

The Major


Student are encouraged to select courses that focus on a specific religious tradition or traditions, or on a set of thematic issues important to the study of religion.

Honors Program
Students admitted to honors should take three Study of Religion 198 courses under the guidance of the sponsoring professor. The first 198 course should be taken in spring quarter of the junior year, the second during the following fall quarter, and the third during winter quarter of the senior year. The three courses count as part of the regular requirement of 12 upper-division courses. The program culminates in an honors thesis.

Policies

The Major
During their senior year students must complete the capstone seminar, Study of Religion 191.

A course may be taken twice, on different topics, for credit toward the major where repetition is allowed by the department offering the course. A maximum of two upper-division courses in an ancient language relevant to the course of study may be applied toward the major requirements with consent of the adviser.

A maximum of 12 units of special studies courses (197, 198, 199) approved by the adviser may be applied toward the major. Each course for preparation for the major and the major must be taken for a letter grade.

Honors Program
The honors program provides exceptional students with an opportunity to do independent research under the tutorial guidance of a faculty member.

To qualify for admission students should have a minimum grade-point average of 3.4. The 198 courses designed for the program and the thesis topic should be approved by the committee in charge of the major.

For more information, contact the student affairs officer or the faculty adviser at the program address.

Undergraduate Minor

Study of Religion Minor

Admission
To enter the Study of Religion minor, students must have an overall grade-point average of 2.0 or better.

The Minor

Required Lower-Division Courses (4 to 10 units): Study of Religion M4 or 11, or M50 and M60A or M60W.


Student are encouraged to select courses that focus on a specific religious tradition or traditions, or on a set of thematic issues important to the study of religion.

Policies

A course may be taken twice, on different topics, for credit toward the minor where repetition is allowed by the department offering the course. A maximum of 4 units of special studies courses (197, 198, 199) approved by the adviser may be applied toward the minor.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Study of Religion

Lower-Division Courses

M4. Introduction to History of Religions. (5) (Same as History M4.) Lecture, three hours; discussion, two hours. Comparative study of eight major religious traditions, with emphasis on their beginnings and subsequent decisive changes in their respective historical developments and interactions. Equips students with intellectual tools necessary for thinking analytically, empathetically, and comparatively about fascinating human phenomena identified as religious, such as sa-
cred acts, places, words, and persons in their varied historical contexts. Development of student skills in critical thinking, analyzing documents, and making persuasive arguments based on historical evidence. P/NP or letter grading.

M10. Introduction to Judaism. (5) Same as Jewish Studies M101. Lecture, three hours; discussion, one hour. Judaism’s basic beliefs, institutions, and practices. Development of biblical and rabbinic Judaism; concepts of god, sin, repentance, prayer, and the messiah; history of Talmud and synagogues; evolution of folk beliefs and year-cycle and life-cycle practices. P/NP or letter grading.

11. Religion in Los Angeles. (5) Lecture, four hours. Introduction to varieties of religious experience in Los Angeles and its environs. Presentations, required readings, and (where possible) site visits to examine selected faith and spiritual practices throughout Southern California and provide deeper understanding of myriad ways that sacred is made manifest and encountered. Foundational academic orientations within study of religion (anthropological, historical, psychological, sociological, etc.) used as framework to examine and interpret almost unparalleled religious diversity of City of Angels. Recognizing that spiritual traditions of region’s ever-changing demographics, emphasis on role of ethnicity, gender, nationality, and race in shaping of religious landscape. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP or letter grading.

M20. Introduction to Islam. (5) Same as Islamic Studies M202. Lecture, three hours; discussion, one hour. Genesis of Islam, its doctrines, and practices, with readings from Qur’an and Hadith; schools of law and thought; beliefs in God; reform and modernism. P/NP or letter grading.

M40. Christians East and West. (5) (Same as Slavic M40.) Lecture, three hours; discussion, one hour. Survey of three major historical branches of Christianity—Eastern Orthodox, Roman Catholic, and Protestantism, contrasting how history, dogma, culture, and community structures develop in those three traditions. P/NP or letter grading.

M50. Origins of Judaism, Christianity, and Islam. (5) Same as Islamic Studies CM50B and Middle Eastern Studies M50B.) Lecture, three hours; discussion, one hour. Examination of three major monotheisms of Western religion: Christianity (A.D. 1 to present), Islam (622 to present), and Judaism (586 B.C. to present). Focus on religious doctrines, practices, and historical development and persecution of Bahá’í communities in West. Exposure to different Muslim communities in West. Analysis of how study of religion to situate them within their own historical, philosophical, and social contexts. Critical consideration of changes in meanings of term religion and its relationship to such categories as science and magic, as well as to other domains of social experience. Examination of how study of religion has been understood and has developed, especially biblical studies, anthropology, sociology, psychology, and evolutionary biology. P/NP or letter grading.

M105A. Bahá’í Faith in Iran: Historical and Sociological Survey. (4) (Same as Iranian M105A.) Lecture, three hours. A historical survey of Bahá’í communities in 19th century Iran. Focus on personalities of Báb, Bahá’u’lláh, and ‘Abdu’l-Bahá. May be taken independently for credit. P/NP or letter grading.


M105C. Bahá’í Faith in Iran: 20th-Century Iran and the Baha’is. (4) (Same as Iranian M105C.) Lecture, three hours. Readings in English. Focus on history of 20th-century Iran beginning with constitutional revolution, development and persecution of Bahá’í community, and latter’s relation to reform movements in Iran. May be taken independently for credit. P/NP or letter grading.

M106A. Premodern Islam. (4) (Same as History M106.) Lecture, three hours; discussion, one hour (when scheduled).Designed for juniors/seniors. Examination of early development of Islam with special attention to the development of major theories, methods, and approaches to study of religion to situate them within their own historical, philosophical, and social contexts. Critical consideration of changes in meanings of term religion and its relationship to such categories as science and magic, as well as to other domains of social experience. Examination of how study of religion has been understood and has developed, especially biblical studies, anthropology, sociology, psychology, and evolutionary biology. P/NP or letter grading.

98. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students may be required to consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

101. History of Study of Religion. (4) Lecture, four hours. Recommended: All M104, M106, and M107. Survey of major modern theories, methods, and approaches to study of religion to situate them within their own historical, philosophical, and social contexts. Critical consideration of changes in meanings of term religion and its relationship to such categories as science and magic, as well as to other domains of social experience. Examination of how study of religion has been understood and has developed, especially biblical studies, anthropology, sociology, psychology, and evolutionary biology. P/NP or letter grading.


M510C. Bahá’í Faith in Iran: 20th-Century Iran and the Baha’is. (4) (Same as Iranian M510C.) Lecture, three hours. Readings in English. Focus on history of 20th-century Iran beginning with constitutional revolution, development and persecution of Bahá’í community, and latter’s relation to reform movements in Iran. May be taken independently for credit. P/NP or letter grading.

M510A. Premodern Islam. (4) (Same as History M510A.) Lecture, three hours; discussion, one hour (when scheduled).Recommended for juniors/seniors. Examination of early development of Islam with special attention to the development of major theories, methods, and approaches to study of religion to situate them within their own historical, philosophical, and social contexts. Critical consideration of changes in meanings of term religion and its relationship to such categories as science and magic, as well as to other domains of social experience. Examination of how study of religion has been understood and has developed, especially biblical studies, anthropology, sociology, psychology, and evolutionary biology. P/NP or letter grading.

790 / Religion, Study of contemporary discourses such as human rights, feminism, and contemporary reform movements. Primary sources include excerpts from Qur’an, Qur’anic interpretation, Coptic, and Muslim themes, thought, and reformists. Strong focus on analytical and writing skills through in-class assignments and discussion. Letter grading.


M115. Islam and Other Religions. (5) (Same as Islamic Studies CM115.) Lecture, three hours; discussion, one hour. Students gain familiarity with historical cases and modes of interaction between Muslims and non-Muslims in plural societies. Consideration of axis questions such as how does Qur’an reflect religious pluralism to shape a single Islamic politico-spiritual identity; what encounters did rapid expansion of Islam bring about in diverse societies; how did Islam and other religions change through debate, war, and exchange of ideas; role of political power plays in conditioning interreligious interaction; how have conversion and hybridity affected what it means to be Muslim; what is different about interreligious interactions in secular Western societies; and how is past invoked to justify opinions and policies today. Investigation of these questions by conducting microstudies: close readings of sources through theoretical lens. P/NP or letter grading.

118B. Kierkegaard and Philosophy of Religion. (4) (Same as Philosophy M118B.) Lecture, three to four hours; discussion, one hour (when scheduled). Preparation: one philosophy course. Study of selected works of Kierkegaard on philosophy of religion, with emphasis on interpretation of texts. P/NP or letter grading.


M132. Ancient Egyptian Religion. (5) (Same as Ancient Near East M130.) Lecture, three hours; discussion, one hour (when scheduled). Preparation: one course in religious beliefs, practices, and sentiments of ancient Egypt to study Egyptian religion as coherent system of thought and sphere of action that once served as meaningful and relevant framework for understanding physical reality and human life for inhabitants of Nile Valley. General principles as well as developments through time (circa 3000 BC to 300 CE). Topics include mythology, temple and cult, magic, and personal piety. P/NP or letter grading.

M133. Bible and Qur’an. (4) (Same as Middle Eastern Studies M133.) Lecture, three hours. Survey of Hebrew Bible/Old Testament, New Testament, and Qur’an to familiarize students with content of scriptures of Judaism, Christianity, and Islam, and socio-cultural background from which these multifarious texts emerged, and to explore major themes and consider various interpretations. Examination of role scripture plays in these religious systems and in American culture and society. P/NP or letter grading.

M135. Religion in Ancient Israel. (4) (Same as Ancient Near East M135.) Lecture, three hours. Introductory survey of various ancient Israelite religious beliefs and practices, their origin, and development, with special attention to diversity of religious practice in ancient Israel and Judah during 1st millennium BCE. P/NP or letter grading.

140. Undergraduate Seminar: Study of Religion. (4) Seminar, three hours. Interdisciplinary approach to some major topics in study of religion, such as religion and politics, mysticism, ideas of revelation, myth and religion, worship and ritual. May be repeated for credit with consent of instructor. P/NP or letter grading.

M142C. History of Religion in U.S. (4) (Same as History M142C.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Consideration of people's experience in U.S. Examination of number of religious traditions that have been important in this country, with emphasis on relating developments in religion to other aspects of American culture. P/NP or letter grading.

150D. Islam and Modernity, four hours. Investigation and consideration of roles, status, and representations of women and gender in one or more religious traditions. Examination of how cultural concepts of gender as well as social realities (as far as they can be known) for women and men in particular historical periods shape and are shaped by these religious traditions, including discussions regarding ritual practices, sexual reproduction, religious authority, marriage and family life, fertility, conceptions of body, public life, and/or literary representations of gender (including those of divine). Variety of approaches to be included, including feminist, literary, historical, sociological, and anthropological. P/NP or letter grading.

155. Angels, Demons, and End of World: Magic, Mysticism, and Apocalypse in Jewish Traditions. (4) (Same as Jewish Studies M155.) Lecture, three hours; discussion, one hour. Focus on popular Jewish traditions of magic, mysticism, apocalypse, and various contours of Judaism's textual and material traditions in antiquity. Examination of texts from Hebrew Bible to modern discussion of Kabbalah and end of world, concentrating on Jewish apocalyptic discourse. Of texts, including Hebrew Bible, Dead Sea Scrolls, extra-biblical Jewish texts, New Testament, and rabbinic and later Jewish literature. Discussion of sociohistorical context in order to decipher features and functions of magic, mysticism, and apocalypse in antiquity and modernity. P/NP or letter grading.

160. Religion, Film, and Media. (4) Lecture, four hours. Examination of complex relationship between religious traditions and various media (e.g., print, film, photography, comics) as they have intersected in specific historical and cultural contexts. Illumination of role of media in forming and expressing religious ideas, practices, and identities. Topics may include representations of religious groups, visual and aural piety, identity formation, interreligious conflict, religious education, and use of media technologies for propaganda or proselytizing purposes. Historical, sociological, and anthropological approaches used in concert with various methodologies current within media studies. P/NP or letter grading.

M161A. Chinese Buddhism. (4) (Same as Chinese CM160C.) Lecture, three hours; discussion, one hour. Knowledge of Chinese introduction and development of Buddhism in China, interaction between Buddhism and Chinese culture, rise of Chinese schools of Buddhism. Letter grading.

M161B. Japanese Buddhism. (4) (Same as Japanese CM160D.) Lecture, three hours; discussion, one hour. Knowledge of Japanese not required. Development of Buddhism in Japan in its cultural context, with emphasis on key ideas and teachings. Letter grading.

M161C. Korean Buddhism. (4) (Same as Korean CM160E.) Lecture, three hours; discussion, one hour. Knowledge of Korean not required. Introduction and development of Buddhism in Korea, interactions between Buddhism and Confucianism, the syncretic traditions of Buddhism, Korean syntheses of imported Buddhist theological systems and meditative techniques, and independent Son (Zen) schools of Korea. Letter grading.

M161D. Buddhism in India. (4) (Same as South Asian CM160F.) Lecture, three hours; discussion, one hour. Knowledge of Indian languages not required. Overview of social and doctrinal history of Buddhism from its origins to its disappearance in India, based not only on texts but on archaeological, art historical, and inscriptive sources. Examination of both formal doctrinal and actual practices and on what learned Buddhist scholars wrote and what Buddhist did, saw, and made. Letter grading.


M173C. Shinto, Buddhism, and Japanese Folk Religion. (4) (Same as History M173C.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Social dimension of various Vajra, Shinto, and littler Shinto traditions. Consideration of cultural nationalism, Buddhism’s medieval Reformation and Zen’s relation to warrior culture, folk religion aspects such as shamanism, ancestor worship, and millenarianism. P/NP or letter grading.

M174D. Indo-Islamic Interactions, 700 to 1750. (4) (Same as History M174D.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Historical introduction to Muslim conquests,ization of the Abbasid Empire, to Islamic civilization, to India, Pakistan, and Bangladesh. Topics include social, political, religious, and cultural history. P/NP or letter grading.

M174E. Indo-Islamic Interactions, 1750 to 1950. (4) (Same as History M174E.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of interplay of factors that, from early Christian missionaries to Islamic madrasah schools and colonial rebellions, have multifacted Muslim reformation in context of colonial modernity. P/NP or letter grading.

M175. Topics in Philosophy of Religion. (4) (Same as Philosophy M175.) Lecture, three hours; discussion, one hour. Requisite: Philosophy 21 or 22. Intensive investigation of one or two topics or works in philosophy of religion, such as attributes of God, arguments for or against existence of God, or relation between religion and ethics. Topics announced each term. May be repeated for credit with consent of instructor.

177. Variable Topics in Religion. (4) Seminar, three hours. Interdisciplinary approach to some major topics in study of religion, such as religion and science, religion and society, politics, mysticism, ideas of revelation, scripture, myth and religion, worship and ritual. May be repeated for credit with topic change. P/NP or letter grading.

M178. Variable Topics. (4) (Same as Middle Eastern Studies M178.) Seminar, three hours. Interdisciplinary approach to some major topics in study of religion and Middle Eastern studies. May be repeated for credit with topic change. P/NP or letter grading.

M179. Topics in Moral Philosophy: Evil. (4) (Same as Philosophy M152B.) Lecture, three to four hours; discussion, one hour (when scheduled). Preparation: one philosophy course. Exploration of philosophical issues raised by topic of evil actions and/or evil people. Issues may include nature of evil, problem of evil and theodicies, responsibility for evil and problem of free will, and motivations and reaction, divergent responses to evil such as forgiveness and punishment. P/NP or letter grading.

180. Religion and Modern Critical Thought. (4) Lecture, four hours. Examination of how various traditions of modern critical thought inform academic study of religion, with primary focus on philosophical analysis of religious belief and practice and its relation to other areas of theoretical discussion, such as philosophy of language, social science, ethics, politics, and cultural history. Topics may include nature of religious experience and its epistemic status, embodiment and religious self, relationship between knowledge, faith, and doubt, nature and function of religious language, relationship between science and religion, religious belief and standards of rational discourse, theoretical approaches to problems of religious and competing truth claims, formation of religious and secular in modernity. P/NP or letter grading.

M182A. Ancient Jewish History. (4) (Same as History M182A and Jewish Studies M182A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of social, political, and religious developments. P/NP or letter grading.

M182B. Medieval Jewish History. (4) (Same as History M182B and Jewish Studies M182B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Social, political, and religious developments. P/NP or letter grading.
### RESEARCH PRACTICE

#### College of Letters and Science

**A334 Murphy Hall**

Los Angeles, CA 90095-1430

**Research Practice**

**Program e-mail**

Muriel C. McClenndon, PhD, Humanities, Arts, and Social Sciences Chair

Craig A. Merlic, PhD, Sciences Chair

#### Faculty Committee

Tama W. Hasson, PhD (Integrative Biology and Physiology)

Beth A. Lazazzera, PhD (Microbiology, Immunology, and Molecular Genetics)

Muriel C. McClenndon, PhD (History)

Craig A. Merlic, PhD (Chemistry and Biochemistry)

#### Overview

The Research Practice subject area includes interdisciplinary courses in the practice of research. Hosted by the Undergraduate Research Center—Sciences and the Undergraduate Research Center for Humanities, Arts and Social Sciences, research practice courses cover the development of research questions and the application of methodological approaches, as well as forms of qualitative and quantitative analysis, and research communications and publications. The courses combine theory and practice, and emphasize experiential learning. Students do not just gain knowledge and skills in their discipline; they also develop an understanding of how knowledge is created and applied across the university. Research practice courses expand on important skills for success in research, and also explore how research skills integrate into a variety of careers. Research practice courses are not associated with one department; students in any major can enroll. Some courses are associated with a research, journal, or scholarship program, and acceptance into that program is required to enroll. Other courses have an open enrollment. For more information see Research Practice—UCLA Undergraduate Research.

### Research Practice Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

96. Bruins Studying Bruins: Introduction to Higher Education Research through Course-Based Collaborative Research Project. (2) Seminar, two hours. Course-based research experience that introduces students to higher education institutional research, assessment, and accreditation. Students collaborate on research assessment project that is used toward campus instructional improvements and its accreditation documentation. P/NP grading.

97XA. PEERS Freshman Seminar: Succeeding in Science. (1) Formerly numbered Ecology and Evolutionary Biology 97X.) Seminar, one hour. Limited to students in Program for Excellence in Education and Research in Sciences (PEERS). Series of lectures, workshops, and discussions to enhance student success in sciences by developing critical academic survival skills, acquainting students with practice of science, and highlighting opportunities available to participate in research as undergraduate students. P/NP grading.

97XB. PEERS Sophomore Seminar: Pathways in Majors, Careers, and Entry into Research. (1) Formerly numbered Ecology and Evolutionary Biology 97XB.) Seminar, one hour. Limited to students in Program for Excellence in Education and Research in Sciences (PEERS). Series of lectures and workshops to enhance student success in sciences by acquainting students with practice of science, opportunities available to participate in research as undergraduate students, and careers available to students with science degrees. P/NP grading.

97XC. Transfer Success and Pathways to Undergraduate Research for Life Sciences Majors. (4) Seminar, one hour. Limited to new transfer students. Designed to provide essential academic skills for life science transfer students, and promote engagement in university research including instruction on securing research opportunities and skills necessary for research and professional success, communication of research, and exploring resources and life science careers. P/NP grading.

97XD. Research Unwrapped: Introduction to Research in Sciences. (1) Seminar, two hours. Exposes students to university research and wide array of research practices in sciences. Introduction to benefits of undergraduate research, scientific method, information and publication search strategies, science communication, and degree and careers requiring research experience. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised) or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

### Upper-Division Courses

102. Research Practice: Research Revealed. (2) (Formerly numbered 191A) Seminar, two hours. Limited to students participating in Research Revealed undergraduate research preparation program. Students are prepared to conduct their own research, apply to research programs, and interact with faculty members. Topics vary by term. P/NP grading.
103. Research Practice: Student Research Forum. (2) Lecture/activities, four hours. Designed to promote deep engagement in university research, including instruction on research opportunities, skills necessary for research and professional success, exploring research internships on and off campus, and communication of research across all disciplines. P/NP grading.

105. Effective Science Communication. (2) Seminar, two hours. Effectively communicate science in essential for careers in science, technology, engineering, and mathematics. Designed to strengthen and practice skills of sharing scientific communication and presentations, drawing on storytelling techniques to craft more compelling talks. Students have many hands-on experiences with presenting their research, with different audiences, and with different objectives. P/NP grading.

110A. Careers in Libraries and Archives. (2) Formerly numbered Honors Collegium 101M.) Seminar, two hours. Students learn about career paths for librarians and archivists. Introduction to career pathways of various professionals. Brief discussion of professional issues in these fields especially in relation to recruitment and retention in these professions. Discussion of careers in various fields and types of libraries and archives, with emphasis on outstanding professionals at UCLA. Stronger focus on careers in academic spaces. P/NP grading.

110B. Preparing for Post-UCLA Success: Fellowships, Graduate School, and More. (2) Formerly numbered Honors Collegium 101K.) Seminar, two hours. Prepares students to achieve goals beyond UCLA. Participants reflect on values and interests, and learn what is required for effective applications to graduate school, fellowships, and more. Review of process of applying for nationally competitive awards such as Truman, Rhodes, Marshall, and others. Students learn to craft effective curricula vitae, strong personal statements, and compelling research proposals. Students learn to solicit strong letters of recommendation. Skills are preparation for scholarship/fellowship application process, as well as graduate school and job application process. P/NP grading.

120. Research Today: Sources, Tools, and Strategies. (2) Seminar, two hours. Research is process of exploration, experimentation, and discovery. Study is designed to help students to engage in this process and prepare for research-intensive honors thesis. Students collaborate with mentors and experts across UCLA campus as they develop their own approach to research. P/NP grading.

130. Integrity in Science Research. (2) Seminar, two hours. Limited to students in funded research programs, or who are oral study senior thesis. Exploration of research integrity and discussion of important ethical issues that impact scientific investigation. Presentation of major issues in field of research ethics and integrity. Students work together in small groups to present and lead discussions on ethical dilemmas. Focus on research integrity issues that impact broad group of undergraduate researchers on UCLA campus. Student presentations are topical in nature, and vary from year to year based on recent ethical events. P/NP grading.

182. Developing Your Research Skills: Reading, Writing, and Sharing Academic Research in Humanities and Social Sciences. (4) Seminar, three hours; workshop, three hours. Designed for visiting juniors and seniors in Mellon Mays Undergraduate Fellowship program who are engaged in multi-year research projects in humanities and social sciences at home institutions. Focus on development of three important research skills: reading scholarly writing, writing for scholarly audiences, and presenting research for academic and general audiences. Students are supported in producing seven to eight pages of polished writing in form of literature review, thesis chapter, or another meaningful unit of writing as agreed upon with instructor. Students learn to write abstract and present work orally and visually. Approaches reading, writing, and sharing academic research as ongoing, iterative processes. Students gain necessary tools to succeed in all parts of research process. Concludes with symposium in which work is presented. P/NP grading.

192A. UCLA Undergraduate Science Journal. (2) Seminar, two hours. Designed to guide students through critical aspects of preparing UCLA Undergraduate Science Journal for publication. These aspects of writing, reviewing, editing, and formatting articles for publication are essential to research process for sharing findings and engaging with broader scientific and engineering community. Students develop teamwork and project management skills that can help in future career paths. May be repeated for maximum of 10 units. P/NP grading.

192B. Undergraduate Research Journal for Humanities and Social Sciences. (2) (Formerly numbered Honors Collegium 101G.) Seminar, two hours. Limited to students on editorial board of Aleph journal. Students participate in workshops to assess, edit, and publish journal articles. May be repeated for maximum of 10 units. P/NP grading.

193. Variable Topics: Research Practice Journal Club. (2) (Formerly numbered Neurobiology M171 and Psychological Science M171.) Seminar, two hours. Limited by application. Centered on presentation and critical analysis of scientific journal articles, and presentation of students’ own research. Intensive literature-based training program which increases student confidence and scientific literacy, and facilitates transition to postgraduate study. May be repeated for maximum of 10 units. P/NP grading.

194A. Mellon Mays Undergraduate Fellows Research Seminar. (2) (Formerly numbered Honors Collegium 101J.) Seminar, two hours. Limited to current Mellon Mays undergraduate fellows. Designed to support students in their research, and in preparation for graduate school and professional careers. May be repeated five times for credit. P/NP grading.

194B. Research Seminar: Writing Research Proposals and Graduate Applications. (2) Seminar, two hours. Research seminar for undergraduates applying in fall for science, technology, engineering, and mathematics (STEM) PhD or MS programs. Designed to support students in their research, and in preparation for graduate school and professional careers. Letter grading.

194C. Mastering Oral Presentation of Your Research. (2) Seminar, two hours. Examination of best practices in oral presentation of scientific research. Familiarization with rubric used to evaluate oral research presentations given by graduate students and peers. Students present their research, tailored to diverse audience of science faculty and postdocs, and give feedback to their peers. Oral and written feedback is used to help students revise their talks. Culminates with students’ research presentation by each student. Letter grading.

195. Research Activities. (4) Tutorial, 12 hours. Designed to provide academic context for off-campus, remote work at research institutions outside of UCLA. Students work independently with graduate student mentor to learn about research teams, discuss management of research protocols and data, and work weekly on science writing, culminating in production of research abstract and assembly of research paper. May be repeated for credit up to two consecutive quarters. Individual contract required. Letter grading.

Graduate Course

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: Apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

SCIENCE EDUCATION

Interdisciplinary Minor
College of Letters and Science
1037 Young Hall
Box 951569
Los Angeles, CA 90095-1569

Science Education 310-794-2191

Minor e-mail

Jennifer R. Casey, PhD, ex officio (Chemistry and Biochemistry)
Eric J. Deeds, PhD (Integrative Biology and Physiology)
Neil K. Garg, PhD (Chemistry and Biochemistry)
Rashmita S. Mistry, PhD (Education)
Gaston M.U. Pfuegl, PhD, ex officio (Life Sciences)
Patricia E. Phelps, PhD (Integrative Biology and Physiology)
Jody Z. Priselac, EdD (School of Education and Information Studies)
Arlene A. Russell, PhD (Chemistry and Biochemistry, Education)
Joshua F. Samani, PhD (Physics and Astronomy)
Shanna Shaked, PhD, MAT, ex officio (Environment and Sustainability)

Faculty Committee

Nachiketa Chakraborty, PhD
Janet C. Uyeda, PhD
Jennifer R. Casey, PhD, ex officio (Chemistry and Biochemistry)
Eric J. Deeds, PhD (Integrative Biology and Physiology)
Neil K. Garg, PhD (Chemistry and Biochemistry)
Rashmita S. Mistry, PhD (Education)
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Patricia E. Phelps, PhD (Integrative Biology and Physiology)
Jody Z. Priselac, EdD (School of Education and Information Studies)
Arlene A. Russell, PhD (Chemistry and Biochemistry, Education)
Joshua F. Samani, PhD (Physics and Astronomy)
Shanna Shaked, PhD, MAT, ex officio (Environment and Sustainability)

Overview

The Science Education minor provides preparation for careers where teaching is an important component, including middle and high school, community college, university, or other science-related outreach careers. Students who wish to become middle or high school science teachers and who plan to teach as graduate students in their disciplines are the primary focus. The minor supplies the broad general science background included in California state subject matter credential examinations, education coursework, field experiences in the development, management, and teaching of science laboratory instruction in grades 7 through 12, and UCLA-based teaching practicums in lower-division science laboratory.

Undergraduate Minor

Science Education Minor

Admission

Students eligible for admission to the Science Education minor should be making normal progress on the preparation for a major in the sciences or engineering whether they have declared such a major or not. They must have completed nine courses selected from the following, with at least one course from each of the four categories: (1) Chemistry and Biochemistry 14A, 14B, 14BL, 14C, 14CL (or 20A,
20B, 20L, 30A, 30AL), (2) Life Sciences 7A, 7B, 7C, 23L, (3) Mathematics 3A, 31A or Life Sciences 30A, and (4) Physics 1A, 1B, 4AL, 4BL (or 5A, 5B, 5C). Prior participation in a supervised experience in schools is recommended.

To enter the minor, students must be in good academic standing with an overall grade-point average of 2.0 or better. Students must consult with the academic coordinator responsible for the minor to plan a coherent program to complete both the minor and their major, prior to filing a petition to enter the minor.

The Minor

Required Lower-Division Courses (6 to 8 units): Science Education 1XP or 10XP or 15XP, and Earth, Planetary, and Space Sciences 101 or C113 or Atmospheric and Oceanic Sciences 101 or 102 or 103 may be substituted for course 1).

Required Upper-Division Courses (22 units minimum): (1) Education 127, (2) Science Education 100XP, (3) at least three units selected from Chemistry and Biochemistry 192A, 192B, Life Sciences M192A, 192B, 192C, 192D, 192E, Physics 192M, 192S, Physiological Science 192A, 192B, and (4) at least one and no more than two courses selected from Education M102, M103, 104A, 105B, 106A, 107A, 107B, M108, C111, 123, 126, M131A, 132, M136, 139, 141.

Policies

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor, and at least 16 units must be taken in residence at UCLA.

Each minor course, except Science Education 1XP, 10XP, or 15XP, must be taken for a letter grade, with a grade of C or better in each, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Science Education

Lower-Division Courses

1XP. Classroom Practices in Elementary School Science. (2) (Formerly numbered 15SL) Seminar, 90 minutes; fieldwork, three hours per week for eight weeks. Introduction for prospective science teachers to field of elementary education and teaching and learning of science in elementary school classrooms. P/NP grading.

10XP. Classroom Practices in Elementary School Science. (2) (Formerly numbered 100SL) Seminar, three hours; service learning fieldwork, three hours. Recommended requisite: course 1XP or 10XP. Introduction for prospective science teachers to field of secondary education and teaching and learning of science in middle school classrooms. P/NP grading.

Upper-Division Courses

100XP. Classroom Practices in High School Science. (2) Formerly numbered 100SL Seminar, three hours; service learning fieldwork, three hours. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designated as adjunct to lower-division lecture course. In individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

199. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

SLAVIC, EAST EUROPEAN, AND EURASIAN LANGUAGES AND CULTURES

College of Letters and Science

322 Kaplan Hall
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Los Angeles, CA 90095-1502

Slavic, East European, and Eurasian Languages and Cultures
310-825-3856

Faculty Roster

Professors

Iliya Kaganovsky, PhD
Roman Koropeczyk, PhD
Gail D. Lenhoff, PhD
Igor Pilshchikov, PhD
Ronald W. Vroon, PhD (Vladimir and Lydia Markov Professor of Russian Literature)

Senior Lecturers

Susan C. Kresin, PhD
Anna Kudyma, PhD

Lecturers

Melinda Borbely, MA
Anca M. Cupior, PhD
Yelena Furman, PhD
Dennis T. Keen, PhD
Viktoria Lejko-Lacan, PhD

Adjunct Professor

Vladimir Paperny, PhD

Overview

The Department of Slavic, East European, and Eurasian Languages and Cultures offers a wide array of courses in the languages and cultures of Russia and of central and eastern Europe. Instruction is offered in Czech, Hungarian, Polish, Romanian, Russian, Serbian/Croatian, and Ukrainian to provide students with the necessary linguistic skills to pursue advanced work in the literature, culture, history, politics, and social structures of these areas. Students have the choice of several majors and minors and the opportunity to enhance their knowledge and skills through programs of study abroad.
Undergraduate Study
The department offers three majors: (1) Central and East European Languages and Cultures, (2) Russian Language and Literature, and (3) Russian Studies. The equivalent of a major in Central and East European Languages and Cultures or Russian Language and Literature is normally required for admission to the department graduate program and is used to determine the number of courses in Russian literature and/or linguistics that students majoring in Russian Studies are expected to make up in order to receive graduate degrees in the department. Students not majoring in Central and East European Languages and Cultures or Russian Language and Literature who intend to pursue graduate study in the department are strongly encouraged to take courses in Russian literature and linguistics during their undergraduate years to reduce the number of makeup courses required. Qualified seniors may also take graduate courses numbered below 220 with consent of the instructor and the graduate and undergraduate advisers.

Undergraduate Majors
Central and East European Languages and Cultures BA
The major in Central and East European Languages and Cultures is designed to provide students with a mastery of one language of central or eastern Europe and familiarity with the literature, as well as general background in the cultural, political, and social history of the Slavic peoples.

Capstone Major
The Central and East European Languages and Cultures major is a designated capstone major. Students must complete a capstone seminar and present their final paper in the department annual Undergraduate Research Conference. Students draw on their previously acquired subject matter knowledge and skills to plan a research project and write a substantial academic paper. They also gain experience engaging in scholarly discourse, preparing appropriate media for public presentation, and submitting their work to an academic journal.

Learning Outcomes
The Central and East European Languages and Cultures major has the following learning outcomes:

- Incorporation of knowledge acquired to formulate an independent study topic and research project
- Selection and use of original sources in a Central and East European language or Russian to prepare a thesis
- Acquisition of skills relating to development of discourse and argument that is clear, reasoned, reflective, informed by evidence, and aimed at deciding what to believe
- Determination of what information should be developed and analyzed

- Completion of conference presentation that includes fielding audience questions
- Mastery of oral communication including interpersonal communication, presentation, and discussion
- Editing of the research paper into a journal article, and submission of it to an academic journal

Entry to the Major
Transfer Students
Transfer applicants to the Central and East European Languages and Cultures major with 90 or more units must complete the following introductory course prior to admission to UCLA: one culture, history, or civilization course on one or more European nations.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements
Preparation for the Major
Required: Central and East European Studies 91 or Slavic 90.

The Major
Required: (1) One three-quarter (12 to 15 units) introductory central and east European language sequence, or one 12-unit intensive introductory central and east European language course, to be selected from Czech 101A, 101B, 101C, Hungarian 101A, 101B, 101C, Polish 101A, 101B, 101C, Romanian 101A, 101B, 101C, 103, Serbian/Croatian 101A, 101B, 101C, 103, or Ukrainian 101A, 101B, 101C; (2) one three-quarter (12 to 15 units) language sequence to be selected from Czech 102A, 102B, 102C, Hungarian 102A, 102B, 102C, Polish 102A, 102B, 102C, Romanian 102A, 102B, 102C, Serbian/Croatian 102A, 102B, 102C, or Ukrainian 102A, 102B, 102C, or any three courses from Russian 100A, 100B, 100C, 101A, 101B, 101C, 102A, 102B, 102C, 103A, 103B, 103C, 140A; (3) three courses (12 units) from the following list (187 courses are 2 units each; no more than 8 units may be from the 187 series); Central and East European Studies M120, 125, 126, Czech 155, 157A through 157M, History 120A through 120D, Hungarian 175A through 175M, Polish 132A, 152B, 152C, 152D, 175A through 175M, Romanian 152, 175A through 175M, Russian CM124D, Serbian/Croatian 175A through 175M, Ukrainian 152, 175A through 175M; one of three courses may be selected from Russian M118, 119, 120, 124A, 124D, 124N, 124T.

During their senior year, students must also take Slavic 191TA, 191TB, and 191TC in which they complete a capstone senior thesis.

Honors Program
The honors program is designed for exceptional departmental majors who wish to complete a research project that culminates in an honors thesis.

The honors program is a three-term sequence (Slavic 198A, 198B, 198C), taken in addition to requirements for the major.

Policies
The Major
Students may petition to substitute courses after consulting with the undergraduate adviser.

Each major course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better.

Honor Program
Admission
The honors program is open to majors with a 3.5 grade-point average in upper-division courses in the major and a 3.0 overall GPA. Students should apply for admission by spring quarter of their junior year. At the time of admission, students must have completed at least two upper-division courses in their major. Prior to admission to the honors program, students must identify a faculty adviser, who must be a regular member of the UCLA faculty; the faculty adviser must commit to mentoring the student for the duration of the program. Students must also write a two-page proposal of the project, to be approved by the faculty adviser and submitted with the application form.

Requirements
The courses must be taken during senior year (fall, winter, and spring terms respectively). Students pursuing departmental honors must submit the contract for each course by the end of the tenth week of the previous quarter. The sequence culminates in the submission of a thesis. Students who enroll in the honors program are exempt from taking the standard thesis course sequence (Slavic 191TA, 191TB, 191TC).

The honors thesis is intended to be a substantial piece of original scholarship at least 40 pages in length exclusive of front matter, appendices, and bibliography (25 pages to satisfy the regular capstone senior thesis major requirement). Students are required to use a Slavic, east European, or Eurasian language in their research, with the scope of the language work to be determined in consultation with their faculty adviser. Evaluation of the honors thesis is made by the faculty adviser.

To qualify for graduation with departmental honors, students must (1) complete all requirements for the major, (2) have a cumulative grade-point average of 3.5 or better in upper-division courses required for the major and an overall GPA of 3.0 or better, and (3) complete Slavic 198A, 198B, 198C with grades of B or better.

To qualify for graduation with departmental highest honors, students must (1) complete all requirements for the major, (2) have a cumulative grade-point average of 3.8 or better in upper-division courses required for the major and an overall GPA of 3.5 or better, and (3) complete Slavic 198A, 198B, 198C with grades of A– or better.

Honors and highest honors are recorded on the final transcript and diploma after students successfully complete the program.

In the event that a student does not complete the departmental honors program or qualify for
departmental honors/highest honors, their paper may count toward the regular capstone senior thesis requirement for their major (25 pages minimum to satisfy requirement).

**Russian Language and Literature BA**

The Russian Language and Literature major is designed to provide students with basic mastery of the Russian language and familiarity with the classics of Russian literature. Students typically begin to study Russian in their first year, but those contemplating a Russian major later in their academic program can fulfill the Russian language requirement by combining regular coursework with summer programs or with the University of California Education Abroad Program (EAP) in Moscow, which is open to students who have completed the equivalent of one or more years of study (level 1 on the American Council on Teaching of Foreign Languages [ACTFL] scale). Students interested in this program should consult with the undergraduate adviser as early as possible.

**Capstone Major**

The Russian Language and Literature major is a designated capstone major. Students must complete a capstone seminar and present their paper in the department annual Undergraduate Research Conference. Students draw on their previously acquired subject matter knowledge and skills to plan a research project and write a substantial academic paper. They also gain experience engaging in scholarly discourse, preparing appropriate media for public presentation, and submitting their work to an academic journal.

**Learning Outcomes**

The Russian Language and Literature major has the following learning outcomes:

- Incorporation of knowledge acquired to formulate an independent study topic and research project
- Selection and use of original sources in Russian or a related language to prepare a thesis
- Acquisition of skills relating to development of discourse and argument that is clear, reasoned, reflective, informed by evidence, and aimed at deciding what to believe
- Determination of what information should be developed and analyzed
- Completion of conference presentation that includes fielding audience questions
- Mastery of oral communication including interpersonal communication, presentation, and discussion
- Editing of the research paper into a journal article, and submission of it to an academic journal

**Entry to the Major**

**Transfer Students**

Transfer applicants to the Russian Language and Literature major with 90 or more units must complete the following introductory courses prior to admission to UCLA: two years of Russian and one Russian civilization course. Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

**Requirements**

**Preparation for the Major**

**Required:** Russian 6 or 20 or equivalent proficiency, one course from 25, 25W, 90A, 90B, or 90BW.

**The Major**


During their senior year, students must also take Slavic 191TA, 191TB, and 191TC in which they complete a capstone senior thesis.

**Honors Program**

The honors program is designed for exceptional departmental majors who wish to complete a research project that culminates in an honors thesis.

The honors program is a three-term sequence (Slavic 198A, 198B, 198C), taken in addition to requirements for the major.

**Policies**

**The Major**

Students may petition to substitute courses after consulting with the undergraduate adviser.

Each major course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better.

**Honors Program**

**Admission**

The honors program is open to majors with a 3.5 grade-point average in upper-division courses in the major and a 3.0 overall GPA. Students should apply for admission by spring quarter of their junior year. At the time of admission, students must have completed at least two upper-division courses in their major. Prior to admission to the honors program, students must identify a faculty adviser, who must be a regular member of the UCLA faculty; the faculty adviser must commit to mentoring the student for the duration of the program. Students must also write a two-page proposal of the project, to be approved by the faculty adviser and submitted with the application form.

**Requirements**

The courses must be taken during senior year (fall, winter, and spring terms respectively). Students pursuing departmental honors must submit the contract for each course by the end of the tenth week of the previous quarter. The sequence culminates in the submission of a thesis. Students who enroll in the honors program are exempt from taking the standard thesis course sequence (Slavic 191TA, 191TB, 191TC). The honors thesis is intended to be a substantial piece of original scholarship at least 40 pages in length exclusive of front matter, appendices, and bibliography (25 pages to satisfy the regular capstone senior thesis major requirement). Students are required to use a Slavic, east European, or Eurasian language in their research, with the scope of the language work to be determined in consultation with their faculty adviser. Evaluation of the honors thesis is made by the faculty adviser.

To qualify for graduation with departmental honors, students must (1) complete all requirements for the major, (2) have a cumulative grade-point average of 3.5 or better in upper-division courses required for the major and an overall GPA of 3.0 or better, and (3) complete Slavic 198A, 198B, 198C with grades of B+ or better.

To qualify for graduation with departmental highest honors, students must (1) complete all requirements for the major, (2) have a cumulative grade-point average of 3.8 or better in upper-division courses required for the major and an overall GPA of 3.5 or better, and (3) complete Slavic 198A, 198B, 198C with grades of A− or better.

Honors and highest honors are recorded on the final transcript and diploma after students successfully complete the program.

In the event that a student does not complete the departmental honors program or qualify for departmental honors/highest honors, their paper may count toward the regular capstone senior thesis requirement for their major (25 pages minimum to satisfy requirement).

**Russian Studies BA**

The major in Russian Studies is designed for students who wish to complement mastery of the language with an array of courses on Russian history, politics, literature, and culture.

**Capstone Major**

The Russian Studies major is a designated capstone major. Students must complete a capstone seminar and present their final paper in the department annual Undergraduate Research Conference. Students draw on their previously acquired subject matter knowledge and skills to plan a research project and write a substantial academic paper. They also gain experience engaging in scholarly discourse, preparing appropriate media for public presentation and submitting their work to an academic journal.
Learning Outcomes
The Russian Studies major has the following learning outcomes:

- Incorporation of knowledge acquired to formulate an independent study topic and research project
- Selection and use of original sources in Russian or a related language to prepare a thesis
- Acquisition of skills relating to development of discourse and argument that is clear, reasoned, reflective, informed by evidence, and aimed at deciding what to believe
- Determination of what information should be developed and analyzed
- Completion of conference presentation that includes fielding audience questions
- Mastery of oral communication including interpersonal communication, presentation, and discussion
- Editing of the research paper into a journal article, and submission of it to an academic journal

Entry to the Major

Transfer Students
Transfer applicants to the Russian Studies major with 90 or more units must complete the following introductory courses prior to admission to UCLA: two years of Russian and one Russian civilization course.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major

Required: Russian 6 or 20 or equivalent proficiency, one course from 25, 25W, 90A, 90B, or 90BW.

The Major


During their senior year, students must also take Slavic 191TA, 191TB, 191TC in which they complete a capstone senior thesis.

Honors Program

The honors program is designed for exceptional departmental majors who wish to complete a research project that culminates in an honors thesis.

The honors program is a three-term sequence (Slavic 198A, 198B, 198C), taken in addition to requirements for the major.

Policies

The Major

Students may petition to substitute courses after consulting with the undergraduate adviser.

Each major course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better.

Honors Program

Admission

The honors program is open to majors with a 3.5 grade-point average in upper-division courses in the major and a 3.0 overall GPA. Students should apply for admission by spring quarter of their junior year. At the time of admission, students must have completed at least two upper-division courses in their major. Prior to admission to the honors program, students must identify a faculty adviser, who must be a regular member of the UCLA faculty; the faculty adviser must commit to mentoring the student for the duration of the program. Students must also write a two-page proposal of the project, to be approved by the faculty adviser and submitted with the application form.

Requirements

The courses must be taken during senior year (fall, winter, and spring terms respectively). Students pursuing departmental honors must submit the contract for each course by the end of the tenth week of the previous quarter. The sequence culminates in the submission of a thesis. Students who enroll in the honors program are exempt from taking the standard thesis course sequence (Slavic 191TA, 191TB, 191TC).

The honors thesis is intended to be a substantial piece of original scholarship at least 40 pages in length excluding of front matter, appendices, and bibliography (25 pages to satisfy the regular capstone senior thesis major requirement). Students are required to use a Slavic, East European, or Eurasian language in their research, with the scope of the language work to be determined in consultation with their faculty adviser. Evaluation of the honors thesis is made by the faculty adviser.

To qualify for graduation with departmental honors, students must (1) complete all requirements for the major, (2) have a cumulative grade-point average of 3.5 or better in upper-division courses required for the major and an overall GPA of 3.0 or better, and (3) complete Slavic 198A, 198B, 198C with grades of B or better.

To qualify for graduation with departmental highest honors, students must (1) complete all requirements for the major, (2) have a cumulative grade-point average of 3.8 or better in upper-division courses required for the major and an overall GPA of 3.5 or better, and (3) complete Slavic 198A, 198B, 198C with grades of A– or better.

Honors and highest honors are recorded on the final transcript and diploma after students successfully complete the program.

In the event that a student does not complete the departmental honors program or qualify for departmental honors/highest honors, their paper may count toward the regular capstone senior thesis requirement for their major (25 pages minimum to satisfy requirement).

Undergraduate Minors

Central and East European Studies Minor

The Central and East European Studies minor is designed for students who wish to augment their major program of study in the College of Letters and Sciences with exposure to a variety of disciplines pertinent to the study of central and eastern Europe, including language, literature, history, political science, folklore, ethnomusicology, and women’s studies.

Admission

To enter the minor students must be in good academic standing (2.0 minimum grade-point average) and file a petition with the department counselor in 322B Kaplan Hall, 310-825-5856.

The Minor

Required Lower-Division Course (5 units): Central and East European Studies 91 or Slavic 90.

Required Upper-Division Courses (28 to 31 units): (1) One three-quarter introductory central and east European language sequence, or one 12-unit intensive introductory central and east European language course, to be selected from Russian 101A, 101B, 101C, Hungarian 101A, 101B, 101C, Polish 101A, 101B, 101C, Romanian 101A, 101B, 101C, 103, Serbian/Croatian 101A, 101B, 101C, 103, or Ukrainian 101A, 101B, 101C students who demonstrate sufficient fluency in one of these languages through departmental testing are exempt from this three-course sequence and must replace it with a minimum of 12 units of language courses from item 3; (2) one course dealing directly with the target culture to be selected from Central and East European Studies 125, 126, 155, History 120A through 120D, Polish 152A, 152B, 152C, Romanian 152, Russian CM124G, Serbian/Croatian 154, or Ukrainian 152; (3) 12 units of second-year or higher-level language courses to be selected from Czech 102A, 102B, 102C, 187A through 187M, Hungarian 102A, 102B, 102C, 187A through 187M, Polish 102A, 102B, 102C, 187A through 187M, Romanian 102A, 102B, 102C, 187A through 187M, Serbian/Croatian 102B, 102C, 187A through 187M, Ukrainian 102A, 102B, 102C, 187A through 187M (187 courses are 2 units each) OR three courses dealing directly with any central and east European culture to be selected from Central and East European Studies M120, 125, 126, Czech 155, History 120A through 120D, Polish 152A, 152B, 152C, Romanian 152, Russian CM124G, Ukrainian 152.

Policies

With approval of the undergraduate adviser, other related upper-division courses may be applied toward the minor.
A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

**Russian Language Minor**

**Admission**
To enter the Russian Language minor, students must have an overall grade-point average of 2.0 or better.

**The Minor**

**Required Lower-Division Courses** (9 to 17 units): Russian 6 or 20 or equivalent proficiency, one course from 25, 25W, 90A, 90B, or 90BW.

**Required Upper-Division Courses** (20 to 23 units): Students select one of the following options: (1) Russian 101A, 101B, 101C and two additional Russian language or literature courses; (2) Russian 100A, 100B, 100C and two additional Russian language or literature courses; or (3) five Russian language and literature courses selected from 102A, 102B, 102C, 103A, 103B, 103C, 107A, 107B, 107C, 130A, 130B, 130C, 140A through 140D, with a minimum of three Russian courses in language.

**Policies**

Students may petition to substitute courses after consulting with the undergraduate adviser. A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor. Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

**Russian Literature Minor**

**Admission**
To enter the Russian Literature minor, students must have an overall grade-point average of 2.0 or better.

**The Minor**

**Required Lower-Division Courses** (9 to 17 units): Russian 3 or 10 or equivalent proficiency, one course from 25, 25W, 30, 31, 32, 90A, 90B, or 90BW.

**Required Upper-Division Courses** (20 units): Five courses in Russian-related fields, with a minimum of three courses selected from History M127A through 127D, Political Science 128A, 128B, 156A.

**Policies**

Students may petition to substitute courses after consulting with the undergraduate adviser. A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor. Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

**Russian Studies Minor**

**Admission**
To enter the Russian Studies minor, students must have an overall grade-point average of 2.0 or better.

**The Minor**

**Required Lower-Division Courses** (9 to 17 units): Russian 3 or 10 or equivalent proficiency, one course from 25, 25W, 30, 31, 32, 90A, 90B, or 90BW.

**Required Upper-Division Courses** (20 units): Five courses in Russian-related fields, with a minimum of three courses selected from History M127A through 127D, Political Science 128A, 128B, 156A.

**Policies**

Students may petition to substitute courses after consulting with the undergraduate adviser. A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor. Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

**Graduate Major**

**Slavic, East European, and Eurasian Languages and Cultures MA, CPhil, PhD**

The graduate program provides advanced training in Slavic literatures and linguistics leading to the MA and PhD degrees in Slavic, East European, and Eurasian Languages and Cultures. The primary task of the department faculty is to develop and refine the critical and analytic skills of its students in preparation for productive careers in college teaching and research in the Slavic field. Alternative careers include language teaching, business, translation, interpreting, librarianship, and government service.

**Requirements**

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announce-

**Bulgarian**

**Lower-Division Courses**

19. **Fiat Lux Freshman Seminars.** (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

89. **Honors Seminars.** (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. **Honors Contracts.** (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

99. **Student Research Program.** (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

**Upper-Division Courses**

101A-101B-101C. **Elementary Bulgarian.** (5–5–5) Lecture, five hours. Course 101A is recommended preparation for 101B, which is recommended preparation for 101C. Each course may be waived with consent of instructor. Basic courses in Bulgarian language. P/NP or letter grading.

189. **Advanced Honors Seminars.** (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. **Honors Contracts.** (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

**Central and East European Studies**

**Lower-Division Courses**

19. **Fiat Lux Freshman Seminars.** (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

31. **Introduction to Slavic, East European, and Central Asian Cultures through Film.** (5) Lecture, three hours; discussion, one hour. Interdisciplinary introduction to diversity of languages and cultures represented in Department of Slavic, East European, and Eurasian Languages and Cultures through medium of film. P/NP or letter grading.
89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

100. Balkan Cultures in Film and Literature. (4) Lecture, three hours. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

91. Culture and Society in Central and Eastern Europe. (5) Lecture, three hours; discussion, one hour. Interdisciplinary introduction to main themes and concepts of Central and East European studies, including histories of Eastern Europe, and languages spoken in area. Focus on politics, society, and culture in communism and post-communist periods: party control and disintegration; national and international economic systems; private enterprise and state ownership; atheistic education and state religion; politically engaged literature, mass media, and freedom of expression; sports, visual and performing arts, and nationalism. P/NP or letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

M120. Women and Literature in Southeastern Europe. (4) Same as Comparative Literature M120) Seminar, three hours. Examination of changing roles of women in Balkan countries (Albania, Bosnia-Herzegovina, Bulgaria, Croatia, Greece, Macedonia, Montenegro, Romania, Serbia, Turkey) in last forty years. Emphasis on cultural, social, political, and economic factors affecting women’s roles during countries’ transition from agricultural to industrial economy and from communism to post-communism (in former communist countries). Sensitizes students to complexity of issues in region and helps them better understand multiplicity of causes of present situation. Interdisciplinary study, drawing on sociological/women’s studies, articles, and short fiction by women writers for analysis. Discussion of topics covered in articles, positions taken by authors, and ways in which aspects of Southeast European realities are rendered in fiction by women writers from region. P/NP or letter grading.

125. Interwar Central European Prose. (4) Lecture, three hours. Analysis of the cultural significance of novels, stories, plays, and essays of representative authors of 1920s and 1930s in translation. Special attention to relation between literature and historical and ethnic concerns. P/NP or letter grading.

C126. Cold-War Central European Culture. (4) Formerly numbered C126) Lecture, three hours. Examination of cold-war Central European culture through prism of pro-se culture, essays, and film from 1947 to 1989. Analysis of strategies of Polish, Czech, Hungarian, and East German writers as articulation of tensions, contradictions, and compromises informing communist rule in central and eastern Europe, with focus on culture as node of resistance as well as accommodation to communist system. Concurrently scheduled with course C212. S/U or letter grading.

Czech

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course and guided independent study of advanced Czech: advanced conversation, composition, vocabulary development, and review of selected grammar topics. May be repeated for credit with topic change. P/NP or letter grading.

Upper-Division Courses

101. Variable Topics Research Seminars: Central and Eastern European Studies. (4) Seminar, three hours. Study and discussion of specialized issues and approaches in history, structure, and themes of one or more literary traditions of central and eastern Europe. Consult Schedule of Classes for topics to be offered in specific term. May be repeated for credit with topic change. P/NP or letter grading.

Graduate Courses

C226. Cold-War Central European Culture. (4) Lecture, three hours. Examination of cold-war Central European culture through prism of pro-se culture, essays, and film from 1947 to 1989. Analysis of strategies of Polish, Czech, Hungarian, and East German writers as articulation of tensions, contradictions, and compromises informing communist rule in central and eastern Europe, with focus on culture as node of resistance as well as accommodation to communist system. Concurrently scheduled with course C126. S/U or letter grading.

Hungarian

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to upper-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.
Upper-Division Courses

101A-101B-101C. Elementary Lithuanian. (4–4–4) Lecture, three hours. Course 101A is recommended preparation for 101B, which is recommended preparation for 101C. Each course may be waived with consent of instructor. Basic courses in Lithuanian language. P/NP or letter grading.

102A-102B-102C. Advanced Lithuanian. (4–4–4) Lecture, three hours. Recommended preparation: course 101A is recommended preparation for 102B, which is recommended preparation for 102C. Each course may be waived with consent of instructor. P/NP or letter grading.

121. Survey of Hungarian Literature in Translation. (4) Lecture, three hours. Designed for students in general and comparative literature, as well as students interested in Finno-Ugric studies. Survey of main trends and contacts with other literatures. P/NP or letter grading.

187A. Advanced Tutorial Instruction in Hungarian. (2) Tutorial, one hour; laboratory, one hour. Preparation: two years of Hungarian and/or Hungarian placement test. Tutorial and guided independent study of advanced Hungarian: advanced conversation, composition, vocabulary development, and review of selected grammar topics. May be repeated for credit with topic change. P/NP or letter grading.

187B-187M. Advanced Tutorial Instruction in Hungarian. (2, each) Tutorial, one hour; laboratory, one hour. Preparation: prior course in sequence or Hungarian placement test. Tutorial and guided independent study of advanced Hungarian: advanced conversation, composition, vocabulary development, and review of selected grammar topics. May be repeated for credit with topic change. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Involves in-depth and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

197. Individual Studies in Hungarian. (2 to 4) Tutorial, four hours. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assignment of credit made on recommendation of instructor. May be repeated for credit. Individual contract required. P/NP or letter grading.

Lithuanian Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Involves in-depth and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Polish Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.
Romanian

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

90. Introduction to Romanian Civilization. (4) Lecture, three hours. Introductory survey of social and cultural institutions of Romanian people and their historical background. P/NP or letter grading.

99. Student Research Program. (1 to 2) Research, one to two hours. Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

101A-101B-101C. Elementary Romanian. (5–5–5) Lecture, five hours. Course 101A is recommended preparation for 101B, which is recommended preparation for 102C. Each course may be waived with consent of instructor. Basic courses in Romanian language, P/NP or letter grading.

102A-102B-102C. Advanced Romanian. (5–5–5) Lecture, five hours. Recommended preparation: course 101C (may be waived with consent of instructor). Course 102A is recommended preparation for 102B, which is recommended preparation for 102C. Each course may be waived with consent of instructor. Differences between oral and written discourse, expansion of students’ general and academic vocabulary, and increase of range of grammatical structures for use in speaking and writing. Cultural information to be included in readings. P/NP or letter grading.


152. Survey of Romanian Literature. (4) Lecture, three hours. Lectures and readings in English. Survey of Romanian literature from Middle Ages to present. P/NP or letter grading.

187A. Advanced Tutorial Instruction in Romanian. (2) Tutorial, one hour; laboratory, one hour. Enforced requisite: course 102C or Romanian placement test. Tutorial and guided independent study of advanced Romanian: advanced conversation, composition, vocabulary development, and review of selected grammar topics. May be repeated for credit with topic change. Concurrently scheduled with course 1180. S/U or letter grading.

280. Variable Topics in Polish Literature. (4) Seminar, three hours. Reading knowledge of Polish recommended. Topics include major writers and genres, or periods. May be repeated for credit with topic change. Concurrently scheduled with course 1180. S/U or letter grading.

32. Russia and Asia: Cultural Dialogues. (5) Lecture, three hours; discussion, one hour. Since end of Soviet Union, cultural and political flux within non-Christian lands neighboring Russia has increased dramatically. Given radical rejection of Russian heritage in most former Soviet territories, key distinctions in humanities have become unclear, including confusion between limits of Slavic and Near Eastern studies. Examination of relation of Russia’s culture to its borders; Caucasus, Central Asia, China, and Japan. P/NP or letter grading.

32A. Intensive Reading in Russian. (5) Lecture, three hours; discussion, one hour. Examination of Russian literature and world cinema. Topics include great Russian novelists and their cinematic adaptations, with focus on problems of perception and misperception. P/NP grading.

39. Inclusion in Russian Film. (5) Lecture, three hours; discussion, one hour; film screening, two hours. Key works, names, events, and concepts of Russian cinematic tradition. Development of skills in analyzing and interpreting films and acquisition of critical terminology of film studies. How film form and aesthetics are conditioned by technology, ideology, economics, theory, tradition, and culture. How cinema in Russia has created and contested national identity, how cinema has served interests of state, and how it has defied them. P/NP or letter grading.

38. Russian Literature and World Cinema. (4) Lecture, three hours; discussion, one hour. Examination of Russian literary masterpieces and their screen adaptations in various national cinematic traditions, with focus on problems of perception and misperception arising when literature is translated into cinema, and one national culture is viewed through the eyes of another. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

Russian

Lower-Division Courses

1. Elementary Russian. (5) Recitation, five hours; laboratory, one hour. P/NP or letter grading.

2. Elementary Russian. (5) Lecture, five hours; laboratory, one hour. Requisite: course 1 or Russian placement test. P/NP or letter grading.

3. Elementary Russian. (5) Lecture, five hours; laboratory, one hour. Requisite: course 2 or Russian placement test. P/NP or letter grading.

4. Intermediate Russian. (5) Lecture, five hours; laboratory, one hour. Requisite: course 3 or Russian placement test. P/NP or letter grading.

5. Intermediate Russian. (5) Lecture, five hours; laboratory, one hour. Requisite: course 4 or Russian placement test. P/NP or letter grading.

6. Intermediate Russian. (5) Lecture, five hours; laboratory, one hour. Requisite: course 5 or Russian placement test. P/NP or letter grading.

10. Intensive Elementary Russian. (12) Lecture, 19 hours. Intensive basic course in Russian language equivalent to courses 1, 2, 3, 5. P/NP or letter grading.

15A-15B. Accelerated Elementary Russian. (8–7) Recitation, five hours; laboratory, two hours. Material equivalent to courses 1, 2, 3. P/NP or letter grading.

19A. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

90. Introduction to Russian Civilization. (5) Lecture, three hours; discussion, one hour. Introduction to Russian culture and society from earliest times to 1917. P/NP or letter grading.

90B. Russian Civilization in 20th Century. (5) Lecture, three hours; discussion, one hour. Not open for credit to students with credit for course 90B. Survey of literature, theater, cinema, television, press, music, and arts. Emphasis on contemporary period, with constant reference to Russian and early Soviet antecedents. P/NP or letter grading.

90BW. Russian Civilization in 20th Century. (5) Lecture, three hours; discussion, one hour. Not open for credit to students with credit for course 90B. Survey of literature, theater, cinema, television, press, music, and arts. Emphasis on contemporary period, with constant reference to Russian and early Soviet antecedents. Weekly discussions focus on varied approaches to writing address class topics. Five short papers required. Satisfies Writing II requirement. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.
writing skills, increasing vocabulary, and developing speaking skills required for academic discourse. P/NP or letter grading.

101A-101B-101C. Third-Year Russian. (5–5–5) Lecture, three hours; discussion, two hours. Enforced requisite: course 6 or Russian placement test. Course 101A or Russian placement test is enforced requisite to 101B; course 101B or Russian placement test is enforced requisite to 101C. Advanced grammar, reading, and conversation, with strong multimedia component. P/NP or letter grading.

102A-102B-102C. Topics in Advanced/Superior Russian. (4–4–4) Lecture, three hours. Enforced requisite: course 101A, 101B, 101C or equivalent coursework as determined by department. Course 102A or Russian placement test is enforced requisite to 102B; course 102B or Russian placement test is enforced requisite to 102C. Discussion and composition, with emphasis on vocabulary development and review of selected grammar topics. Readings in fiction and nonfiction, films, and videos, and use of Internet. Each course may be taken independently and may be repeated for credit. P/NP or letter grading.

103A-103B-103C. Russian for Native and Near-Native Speakers. (4–4–4) Lecture, three hours. Course 103A is not required to 103B, which is not requisite to 103C. Improvement of oral and written language skills, emphasis on correct and diversified use of language and addressing individual grammatical difficulties. May be repeated for credit with topic and/or instructor change. 103A, Russian national identity. Readings in literature, philosophy, criticism, film. 103B, Literature and Film. Film adaptations of Russian literature. Readings and screenings. 103C, Special Topics.

107A-107B-107C. Russian for Social and Cultural Studies. (4–4–4) Lecture, three hours. Recommended preparation: third-year Russian. Lectures and readings in Russian. Exploration of texts and media in social sciences and culture, with emphasis on stress, perception, and Internet. Each course may be taken independently and may be repeated for credit. P/NP or letter grading.

108. Russian for Business: Language and Culture. (4–4–4) Lecture, three hours. Preparation: third-year Russian required. Emphasis on formal interpersonal communication of Russian state by Muscovy, Autocracy and its satellite principalities and towns; Mongol invasion; unification of Russian state by Muscovy, Autocracy and its Servitors; serfdom. P/NP or letter grading.

M118. History of Russia, Origins to Rise of Muscovy. (4) Same as History M127A. Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Kievan Russia and its culture, Appanage principalities and towns; Mongol invasion; unification of Russian state by Muscovy, Autocracy and its Servitors; serfdom. P/NP or letter grading.

110. Russian Flagship Program Abroad: Intensive Advanced Russian. (12) Lecture, 19 hours. Enforced requisite: courses 101A, 101B, 101C or equivalent coursework as determined by department. Taught in Russian. Designed for students with high proficiency in Russian who have completed seven-week course in Russian language covering reading, writing, speaking, listening, and grammar. Lectures on Russian history also included. Opportunity to interact with Russian speakers outside class and serve as volunteers. Part of Russian Flagship Program Abroad. May not be repeated for credit. Offered in summer only. Letter grading.

111A-111B-111C. Russian Flagship Program Abroad: Superior Russian. (5–5–5) Lecture, three hours. Enforced requisite: course 111 or equivalent coursework as determined by department. Course 111A is enforced requisite to 111B, which is enforced requisite to 111C. Designed for students with advanced proficiency. Development of skills in Russian phonetics, conversation, and grammar. Acquisition of advanced syntactical structures and expansion of vocabulary based on formal and interpersonal and presentational modes. Letter grading.

112A-112B-112C. Russian Flagship Program Abroad: Russian Literature and Culture. (4–4–4) Lecture, three hours. Enforced requisite: course 110 or equivalent coursework as determined by department. Course 112A is enforced requisite to 112B, which is enforced requisite to 112C. Taught in Russian. Critical reading, analysis, and discussion of Russian literature, with emphasis on Russian cultural and intellectual norms. Readings and essays, with emphasis on formal and academic writing. Letter grading.

113A-113B-113C. Russian Flagship Program Abroad: Professional and Academic Russian and Experiential Learning. (5–5–5) Lecture, three hours. Enforced requisite: equivalent coursework as determined by department. Course 113A is enforced requisite to 113B, which is enforced requisite to 113C. Taught in Russian. Use of discourse practices (speaking, listening, reading, and writing) to participate effectively in discussions of professional topics and situations outside of course. Opportunity to communicate in Russian in authentic contexts by participating in courses with local students, providing service to community, or interning in one business. Letter grading.

C124P. Studies in Russian Literature: Pushkin. (4) Lecture, three hours. Lectures and readings in English. Major works in all genres, including lyric poetry, narrative poems, plays, prose fiction, and selected letters. Concurrently scheduled with course C224P. P/NP or letter grading.

C124T. Studies in Russian Literature: Tolstoy. (4) Lecture, three hours. Lectures and readings in English. Early life and works; stories about the countryside and one major novel such as War and Peace or Anna Karenina. Concurrently scheduled with course C224T. P/NP or letter grading.


M127. Women in Russian Literature. (4) Same as Gender Studies M127. Lecture, three hours. Designed for juniors/seniors. Lectures and readings in English. Introduction to alternative tradition of women’s writings in Russia and Soviet Union. Emphasis on images of women expressed over time and in function as compared with those found in works of contemporary male writers. P/NP or letter grading.


129. Animation and Music Video. (6) Lecture, three hours; discussion, one hour. Designed for juniors/seniors. Lectures and readings in English. Humanities have recently passed through so-called visual turn: traditional emphasis on language(s) in field have been reconsidered in light of society’s increasingly visual workings. New attitude toward our own changing culture (i.e., toward its future) has equal value if applied retrospectively to multiple cultures of one erstwhile empire. In territory where many tongues or traditions needed to be ironed out, visual often plays special role in social cohesion. Because of past politics and today’s profit-driven events, small fickle forms of visual narrative replace. Designed for juniors/seniors. P/NP or letter grading.

130A-130B-130C. Russian Poetry. (4–4–4) Lecture, three hours; discussion, one hour. Designed for juniors/seniors. Lectures and readings in English. Humanities have recently passed through so-called visual turn: traditional emphasis on language(s) in field have been reconsidered in light of society’s increasingly visual workings. New attitude toward our own changing culture (i.e., toward its future) has equal value if applied retrospectively to multiple cultures of one erstwhile empire. In territory where many tongues or traditions needed to be ironed out, visual often plays special role in social cohesion. Because of past politics and today’s profit-driven events, small fickle forms of visual narrative replace. Designed for juniors/seniors. P/NP or letter grading.

130A-130B-130C. Russian Poetry. (4–4–4) Lecture, three hours; discussion, one hour. Designed for juniors/seniors. Lectures and readings in English. Humanities have recently passed through so-called visual turn: traditional emphasis on language(s) in field have been reconsidered in light of society’s increasingly visual workings. New attitude toward our own changing culture (i.e., toward its future) has equal value if applied retrospectively to multiple cultures of one erstwhile empire. In territory where many tongues or traditions needed to be ironed out, visual often plays special role in social cohesion. Because of past politics and today’s profit-driven events, small fickle forms of visual narrative replace. Designed for juniors/seniors. P/NP or letter grading.

132C. Studies in Russian Literature: Dostoevsky. (4) Lecture, three hours. Lectures and readings in English. Use of discourse practices (speaking, listening, reading, and writing) to participate effectively in discussions of professional topics and situations outside of course. Opportunity to communicate in Russian in authentic contexts by participating in courses with local students, providing service to community, or interning in one business. Letter grading.

M132. Comparative Media Studies. (4) Same as Comparative Literature M132. Lecture, three hours. History, form, and function of various media. Grounded in political and commercial experience of eastern Europe, comparative investigation of media technologies, today’s burgeoning markets, and yes-
terday’s tragic abuses. Development of media form(s) and content across various times, places, and cultures, with special attention to Slavic phenomena. Letter grade.


C170. Russian Folklore. (3 to 5) Lecture, three hours. Lectures with course 212B. General introduction to Russian folklore, including survey of genres and related folkloric phenomena. Concurrently scheduled with course C240. P/NP or letter grading.

187A. Advanced Tutorial Instruction in Russian. (2) Tutorial, one hour; laboratory one hour. Enforced requisites: course 102C or Russian placement test. Tutorial and guided independent study of advanced Russian: advanced conversation, composition, vocabulary development, and review of selected grammar topics. May be repeated for credit with topic change. P/NP or letter grading.

187B–187M. Advanced Tutorial Instruction in Russian. (2) Each tutorial, one hour; laboratory, one hour. Preparation: previous course in sequence or Russian placement test. Tutorial and guided independent study of advanced Russian: advanced conversation, composition, vocabulary development, and review of selected grammar topics. May be repeated for credit with topic change. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grade.


201A–201B–201C. Russian: Vocabulary, Pronunciation, Style. (4–4–4) Lecture, three hours. Requisite: course 102C or Russian placement test. Practice in pronunciation and analysis of texts with focus on vocabulary, pronunciation, and style, respectively, in three consecutive terms. S/U or letter grading.


211A. Literature of Medieval Russia. (4) Lecture, three hours. Required for MA (literature). Survey of the literature from its beginning through the Kievan and Muscovite periods up to the 18th century. Letter grade.


212B. 19th-Century Russian Literature: Age of Realism. (4) Lecture, three hours. Required for MA (literature). Survey devoted to emergence of critical and psychological realism, beginning with early works of Turgenev, Goncharov, and Dostoeysievsky, moving to major novels of Tolstoy, Dostoeysievsky, and Saltykov-Shchedrin, and concluding with works of the presym- bols, period, especially short stories of Chekhov. S/U or letter grading.

213A. 20th-Century Russian Literature. 1890 to 1920. (4) Lecture, three hours. Required for MA (literature). Lectures and readings in major literary trends of modernist period, such as decadence, symbolism, futurism, acmeism, and ornamental school. Analysis of representative works of, for example, Bulgakov, Klychevsky, Pasternak, Platonov, and others. S/U or letter grading.


223AD. Studies in Russian Literature: Dostoysievsky. (4) Lecture, three hours. Lectures and readings in English. In-deep reading of major fictional works such as Crime and Punishment, Notes from the Underground, and The Brothers Karamazov. Concurrently scheduled with course C124D. S/U or letter grading.

223MG. Studies in Russian Literature: Gogol. (4) (Formerly numbered C223G.) Same as Ukrainian C223G. Lecture, three hours. Lectures and readings in English. Short stories, novel Dead Souls, and selected plays. Concurrently scheduled with course CM124G. S/U or letter grading.

224P. Studies in Russian Literature: Pushkin. (4) Lecture, three hours. Lectures and readings in English. Major works in all genres, including lyric poetry, narrative poems, plays, prose fiction, and selected letters. Concurrently scheduled with course C124P. S/U or letter grading.

224T. Studies in Russian Literature: Tolstoy. (4) Lecture, three hours. Lectures and readings in English. Early and late stories and novellas, excerpts from the diaries and one major novel such as War and Peace or Anna Karenina. Concurrently scheduled with course C124T. S/U or letter grading.

2240. Russian Folklore. (3 to 5) Lecture, three hours. Lectures and readings in English. General introduction to Russian folklore, including survey ofgenres and related folkloric phenomena. Concurrently scheduled with course C1240. S/U or letter grading.

264. History of the Russian Literary Language. (4) Lecture, three hours. Requisites: course 204, Slavic 201. Evolution of literary Russian from the 11th to 20th centuries, with repeated for credit with topic and/or instructor change. P/NP or letter grading.

270. Russian Poetics. (4) Lecture, three hours. Introduction to technical study of Russian poetics and verification, with attention to metrics, stanza forms, rhyme, and development of various verse types from the 18th into the 20th century.

C277. Studies in Russian Literature: Nabokov. (4) Lecture, three hours. Lectures and readings in English. Russian novelist (The Gift), American novelist (Lolita), autobiographer (Speak Memory), and critic. Concurrently scheduled with course C124N. S/U or letter grading.

292. Seminar: 19th-Century Russian Literature. (4) Seminar, three hours. Requisites: courses 212A, 212B. Selected authors and works from 19th-century poetry, prose, and drama. May be repeated for credit with consent of instructor and graduate adviser.

293. Seminar: 20th-Century Russian Literature. (4) Seminar, three hours. Requisite: course 213A. Selected authors and works from 20th-century poetry, prose, and drama. May be repeated for credit with consent of instructor and graduate adviser. S/U or letter grading.

294. Seminar: Russian Literary Criticism. (4) Seminar, three hours. Requisites: courses 211B, 212A, 212B, 213A. Detailed study of specific school of literary criticism, single literary critic, or period in Russian literary history as reflected in literary criticism. Simultaneous or similar phenomena in literary criticism. In West. May be repeated for credit with consent of instructor and graduate adviser. S/U or letter grading.

296. Seminar: History of Russian Culture. (4) Discussion, three hours. Reading and discussion on selected topics in history of Russian culture.

**Serbian/Croatian**

**Lower-Division Courses**

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript, P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for a maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consent Undergraduate Research Center. May be repeated. P/NP grading.
Upper-Division Courses

101A-101B-101C. Elementary Serbian/Croatian. (5-5-5) Lecture, five hours. Course 101A is recommended preparation for 101B, which is recommended preparation for 101C. Each may be waived with consent of instructor. Basic courses in Serbian/Croatian. P/NP or letter grading.

102A-102B-102C. Advanced Serbian/Croatian. (4-4-4) Lecture, three hours. Recommended preparation: course 101B may be waived with consent of instructor. Course 102A is recommended preparation for 102B, which is recommended preparation for 102C. Each may be waived with consent of instructor. P/NP or letter grading.


154. South Slavic Literature. (4) Lecture, three hours. Lectures and readings in English. Survey of South Slavic literature from Middle Ages to the present. P/NP or letter grading.

167A. Advanced Tutorial Instruction in Serbian/Croatian. (2) Tutorial, one hour; laboratory, one hour. Enforced requisite: course 102C or Serbian/Croatian placement test. Tutorial and guided independent study of advanced Serbian/Croatian: advanced conversational vocabulary development, review of selected grammar topics. May be repeated for credit with topic change. P/NP or letter grading.

167B-167M. Advanced Tutorial Instruction in Serbian/Croatian, (2) Each Tutorial, one hour; laboratory, one hour. Preparation: prior course in sequence or Serbian/Croatian placement test. Tutorial and guided independent study of advanced Serbian/Croatian: advanced conversational vocabulary development, review of selected grammar topics. May be repeated for credit with topic change. P/NP or letter grading.

186. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. A reading seminar on topics of general interest to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

186HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

190. Introduction to Slavic Civilization. (5) Lecture, three hours; discussion, one hour. Introductory survey of social and cultural institutions of Slavic peoples and their historical background. P/NP or letter grading.

99. Student Research Program. (1 to 2) Tutorial or supervised research or other scholarly work, three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

CM114. Teaching and Learning of Heritage Languages. (4) Same as Asian CM124 and Near Eastern Languages CM114.) Lecture, three hours. Consideration of issues relevant to heritage language learners (HLL) and to heritage language (HL) instruction. Readings and discussion on such topics as definitions of HLL and HL, acquisition of grammatical, pronunciation, sociolinguistic, and sociocultural profile of HLs, particularly HLL groups most represented among UCLA students; institutional and instructor attitudes toward HLLs; impact of modern language expectations on IL curriculum and teaching approaches; similarities and differences between HLLs and foreign language learners (FLs) regarding teaching methods and materials, diagnostic testing and needs analysis; use of oral/aural proficiency as springboard for literacy instruction; optimization of instruction of mixed HL and FL classes. Action research component included. Co-requisite: Concurrently scheduled with course CM214. P/NP or letter grading.

188A. Introduction to Eurasia. (2) Lecture, 90 minutes. Experimental or temporary courses in East European and Eurasian studies, such as those taught by resident or visiting faculty members, introductory to upper-division courses. May be repeated for credit with topic change. P/NP or letter grading.

188B. Languages of Eastern Europe and Eurasia. (2) Lecture or tutorial, 90 minutes. Program-sponsored experimental or temporary courses, such as those taught by resident or visiting faculty members, introductory to upper-division courses. May be repeated for credit with topic change in language or language level. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

191TA. Senior Capstone Thesis in Slavic Languages and Literatures. (2-2) Seminar, three hours. Course 191TA is enforced requisite to 191TB, which is enforced requisite to 191TC. Limited to senior departmental majors. Planning and completion of senior capstone thesis. Introduction to research methods and presentation skills. Use of student target language for research required. Oral and written presentations required. Letter grading.

191TB-191TC. Senior Capstone Thesis in Slavic Languages and Literatures. (2-4) Tutorial, to be arranged. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

198A. Honors Research in Slavic, East European, and Eurasian Languages and Literatures. (4) Tutorial, three hours. Limited to senior departmental honors program students. Development of research bibliography and survey of literature in field of Slavic, East European, and Eurasian languages and cultures. Topics chosen through consultation with faculty mentor. Students meet regularly with faculty adviser to report on progress and other activities. May be repeated for credit. Individual contract required. P/NP or letter grading.

198B. Honors Research in Slavic, East European, and Eurasian Languages and Literatures. (4) Tutorial, three hours. Enforced requisite: course 198A. Limited to senior departmental honors program students. Research and writing field of Slavic, East European, and Eurasian languages and cultures under direct supervision of faculty mentor. Topics chosen through consultation with faculty mentor. Students meet regularly with faculty adviser to report on their research, discuss drafts of thesis chapters, and write. Individual contract required. Letter grading.

198C. Honors Research in Slavic, East European, and Eurasian Languages and Literatures. (4) Tutorial, three hours. Enforced requisite: courses 198A, 198B. Limited to senior departmental honors program students. Completion of honors thesis in field of Slavic, East European, and Eurasian languages and cultures. Topics
Graduate Courses

200A. Literary Proseminar. (4) Seminar, three hours. Required for MA (literature). Designed to prepare incoming graduate students for scholarly work by introducing them to resources (departmental, intramural, and extramural), methodologies, and techniques for analysis of literary materials and cultural studies. Letter grading.


201. Introduction to Church Slavic. (4) Lecture, three hours. Required for MA (literature). Introduction to the alphabet, phonology, and grammar of Slavic languages and to research tools and methodologies associated with Church Slavic. Letter or S/U grading.


193. Directed Research in Slavic Languages and Literatures. (2 to 8) Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research under guidance of faculty mentor. Culminating paper required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Ukrainian

Lower-Division Courses

19. Flat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

189. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designated as adjunct to upper-division lecture course. In-depth study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

Upper-Division Courses

101A-101B-101C. Elementary Ukrainian. (5–5–5) Lecture, five hours. Course 101A is recommended preparation for 101B, which is recommended preparation for 101C. Each course may be waived with consent of instructor and graduate advisor. Concurrently scheduled with course CM214G. P/NP or letter grading.

102A-102B-102C. Advanced Ukrainian. (4–4–4) Lecture, three hours. Recommended preparation: course 101C (may be waived with consent of instructor). Concurrently scheduled (same as Russian CM214G.) Lecture, three hours. Lectures and readings in English. Short stories, novel Dead Souls, and selected plays. Concurrently scheduled with course CM214G. P/NP or letter grading.

152. Ukrainian Literature. (4) Lecture, three hours. Lectures and readings in English. Survey of writers, literary trends, and issues in Ukrainian literature from the late 18th century to the present. Special attention to works of such major figures as Kol’tsavyk, Shevchenko, Franko, Ukrainka, and Tychyna.

C180. Variable Topics in Ukrainian Literature. (4) Seminar, three hours. Reading knowledge of Ukrainian recommended but not required. Topics include major writers, genres, or periods. May be repeated for credit with topic change. Concurrently scheduled with course C280. P/NP or letter grading.

187A. Advanced Tutorial Instruction in Ukrainian. (2) Tutorial, one hour; laboratory, one hour. Preparation: two years of Ukrainian and/or Ukrainian placement test. Tutorial and guided independent study of advanced Ukrainian: advanced conversation, composition, vocabulary development, and review of selected grammar topics. S/U grading.

187B-187M. Advanced Tutorial Instruction in Ukrainian. (2 each) Tutorial, one hour; laboratory, one hour. Preparation: prior course in sequence or Ukrainian placement test. Tutorial and guided independent study of advanced Ukrainian: advanced conversation, composition, vocabulary development, and review of selected grammar topics. S/U grading.

189A. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. In-depth study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designated as adjunct to upper-division lecture course. In-depth study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

Graduate Course


C280. Variable Topics in Ukrainian Literature. (4) Seminar, three hours. Reading knowledge of Ukrainian recommended but not required. Topics include major writers, genres, or periods. May be repeated for credit with topic change. Concurrently scheduled with course C180. S/U or letter grading.

SOCIAL SCIENCE

Interdepartmental Program
College of Letters and Science
2500 Public Affairs Building
Box 957174
Los Angeles, CA 90095-7174

Social Science
310-825-3565
Juliet A. Williams, PhD, Chair

Faculty Committee
Andrew Apter, PhD (Anthropology, History)
Robin L.H. Derby, PhD (History)
Kelly A. Kay, PhD (Geography)
Tamar Kremer-Sadlik, PhD (Anthropology)
Overview
The Division of Social Sciences is home to leading researchers working to advance understanding of human societies around the globe. With over 250 faculty members housed in more than 15 departments and programs, the division encourages students to explore diverse perspectives and approaches to the study of social life.

The Social Science Interdepartmental Program offers the Master of Social Science (MSS) self-supporting degree. Drawing from current theories, methods, and professional practices from across the social sciences, students develop proficiency with quantitative and qualitative research methods used to address complex social problems. The intensive one-year curriculum emphasizes creative problem-solving and collaborative research practices. Graduates will be prepared for academic and professional careers.

Graduate Major
Master of Social Science Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Social Science Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

110A. Social Science in Context: Perspectives and Methods in Study of Culture and Society. (3) Lecture, three hours. Introduction to social science perspectives and methods for study of culture and society through combination of theoretical discussions and practical exercises. Students gain understanding of interaction of persons, societies, cultures, environments, and time. Examination of relationships between language, culture, and society to gain insights into processes of social reproduction of identities, power relations, and inequality. Students are exposed to working parts of social research: ethics of studying people and communities, gathering and analyzing of data (e.g., observations, interviews, and surveys), and interpretation and presentation of findings. Students gain informed views and attitudes towards just society, intercultural understanding, informed and active citizenship, ethical research practices, and lifelong learning. Letter grading.

110B. Social Science in Context: Understanding New Zealand from Colonialism to Neoliberalism. (4) Lecture, eight hours (four weeks). Offered as part of summer UCLA Travel Study Program to New Zealand. Examination of the history of New Zealand, focusing on its current political and economic context. The historical and social processes that have shaped the modern nation, the structure of New Zealand's economy, and its place in the world economy. Students gain greater insight into social and political relations and events elsewhere in the world, including U.S. Letter grading.

188. Academic Innovation in Industry. (1) Lecture, one hour (prerequisite; concurrent; as needed) to study disciplinary knowledge to industry problems and technological trends. Students build skills to enable them to create novel ways of meeting challenges, build network intelligence, and communicate their ideas and expertise. Students also learn problem-solving techniques like lean startup approach. Uses case study approach to show how social scientists have connected with recent technology trends to produce impactful innovation. P/NP grading.

Graduate Courses

M240. Data and Society. (4) (Same as Digital Humanities M221.) Seminar, three hours. Introduction to way data and computing technologies increasingly play pivotal role in social sciences. Students pose critical questions about social impact of data, while also gaining literacy in engaging digital and data tools. Students learn to recognize historically and institutionally produced biases in science and scientific evidence. Emphasis is on how to work with data for social justice aims. S/U or letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel. Apprentice Shadow, cooperate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated. Credit/No Credit grading.

401. Quantitative Social Science Research Methods. (4) Seminar, three hours. Introduction to major components of research projects, focusing on research questions, theoretical frameworks, and research design. Students design feasible research plan for individual project. Students identify research question; identify existing data for original analysis; compare theoretical frameworks for social scientific analysis of data; assess relevant evidence and literature; and explore approaches to data analysis. Students submit assignments, and complete research proposal. Letter grading.

410. Engaged Social Science. (4) Seminar, three hours. Exploration of theory and practice of engaged social scientists engaging its historical and contemporary role from policy studies and related fields to more activist modalities of critique and intervention. Drawing on classic and contemporary studies in sociology, anthropology, political science, environmental studies, and social justice, to engage students in larger debates about politics of knowledge in relation to issues, such as poverty, racism, public health, refugees, gang culture, gender hierarchies, public education, and citizenship. Letter grading.

419. Data Analysis. (4) Lecture, three hours. Workshop in which students develop research and analysis skills related to establishing and executing data analysis plan. Students engage in intensive peer-review process, working collaboratively in small groups. Students receive detailed feedback from instructor, teaching assistants, and faculty reader, and are expected to routinely revise their work. Students refine their presentation skills and prepare three- to five-minute presentation. Letter grading.

420. Research Design and Analysis. (4) Seminar, three hours. Guided completion of major research paper (MRP). Students receive detailed feedback from instructor, revise literature review, finalize analysis, tighten rhetoric, and improve organization of manuscript to transform it into final research paper. Letter grading.

430. Community-Based Research. (4) Lecture, three hours; fieldwork, two hours. Study of principles, ethics, and methods of community-based research (CBR), and place and purpose of scholarly inquiry. Working in teams, students conduct small-scale research projects in collaboration with local community organizations. Teams work closely with instructors and organization agents on all aspects of research design,
execution, and data analysis. Students apply quantitative and qualitative research methods skills acquired in courses 401 and 402 to research projects. Attendance at research site meetings, team meetings, and weekly on-campus class meetings required. Each team produces and submits final research report to community partner by end of quarter. Letter grading.

430A. Community-Based Research, Part 1. (4) Lecture, three hours; fieldwork, two hours. Part 1 of 2-part series. Students learn principles, ethics, and methods of community-based research (CBR), and place and purpose of scholarly inquiry. Working in teams, students conduct small-scale research projects in collaboration with local community organizations. Research projects are selected in consultation with instructor and community organization to be completed within quarter. Teams work closely with instructors and organization agents on all aspects of research. Teams develop research design, data collection methods and protocols, recruit participants, and engage in data collection. Students apply quantitative and qualitative research methods skills acquired in courses 401 and 402 to their research projects. Students are expected to attend meetings at research sites, team meetings, and weekly class meetings on campus. Letter grading.

430B. Community-Based Research, Part 2. (4) Lecture, three hours; fieldwork, two hours. Part 2 of 2-part series. Focus on data analysis and writing of final report. Working in teams, students develop data analysis plans, identify units of analysis, develop coding scheme, determine statistical inquiries, and conduct data analysis (including statistical analyses of quantitative data and coding of qualitative data) and interpretation of results. Work is divided fairly among team members with each team member contributing based on their skills and talents. Teams work closely with instructors and organization agents on all aspects of research and write-up. Students are expected to attend all meetings at research sites, team meetings, and weekly class meetings on campus. Each team produces and submits final research report to instructor and community partner. Letter grading.

Social Thought
Interdisciplinary Minor
College of Letters and Science
A316 Murphy Hall
Box 951430
Los Angeles, CA 90095-1430
Social Thought
310-267-5430
Minor Adviser
Jeffrey J. Guhin, PhD, Chair

Faculty Committee
Cécile Guédon, PhD (European Languages and Transcultural Studies) Jeffrey J. Guhin, PhD (Sociology)
Barbara Herman, MA, PhD (Law, Philosophy, Society and Genetics)
Mitcham A. Huehls, PhD (English)
Jeffrey Prager, PhD (Sociology)
Stephanie B. Santana, PhD (Comparative Literature)

Overview
The Social Thought minor helps students to think better: to think more deeply and more critically, drawing on the intellectual resources of major thinkers from around the world. Emphasizing social and political thought from the 17th century to today, students read widely to develop an original argument about social life, culminating in a thesis project that is an original contribution to scholarship.

The minor builds on lower-division introductory exposure to the history of modern ideas as embodied in a number of key texts by significant thinkers such as Darwin, Descartes, de Beauvoir, Du Bois, Freud, Hobbes, Locke, Marx, Mill, Nietzsche, Rousseau, Said, Smith, Weber, and Wollstonecraft. Building upon these foundations, students are encouraged to read widely and make connections to intellectuals who are not traditionally considered part of the canon of North Atlantic thought, especially thinkers from the Global South, indigenous communities, and historically marginalized groups.

Insisting that the best way to develop your thoughts is to write about them, the minor culminates in a two-term capstone project, a thesis of at least 5,000 words, under the direction of a UCLA faculty mentor. Students from all majors are encouraged to join the Social Thought minor. The Social Thought minor is about asking big questions about big ideas, and writing answers to those questions.

Undergraduate Minor
Social Thought Minor
Admission
The Social Thought minor is limited to students who formally apply and are admitted. To apply, students must meet with the academic adviser, submit an application, a letter of recommendation from a faculty mentor, and an application essay to the College Academic Counseling Office, A316 Murphy Hall. For more information, see the minor website.

To enter the minor, students must have an overall grade-point average of 2.0 or better and apply for admission only after successfully completing the following lower-division requirements: Clusters 21A and 21B, or two courses from German 56, Honors Collegium 20, 21W, 55, 57, 83W, Philosophy 6, Political Science 10, Sociology 10.

The Minor

Policies
A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor. No more than two courses (8 to 10 units) may be applied toward both this minor and a major or minor in another department or program.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Social Thought
Lower-Division Courses
19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

88. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses
189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

190A-190B. Research Colloquia in Social Thought I, II. (2–2) Seminar, two hours. Corequisite for course 190A course 190A; for 190B: course 199B. Limited to juniors/seniors. Required of students in Social Thought minor. Designed to bring together students undertaking supervised senior thesis work in seminar setting with one or more faculty members to discuss their work or related work in Social Thought minor. Led by one supervising faculty member. Course 190A may be repeated for credit. P/NP grading.

195A-199B. Directed Research or Senior Thesis in Social Thought I, II. (4–4) Tutorial, to be arranged. Corequisite for course 195A course 195A; for 199B: course 190B. Limited to juniors/seniors. Required of students in Social Thought minor. Supervised indi-
Overview

The primary objectives of the Department of Social Welfare graduate program are to prepare leaders for the profession of social work and to develop the empirical base for all facets of practice. In response to changing demographic trends and the emergence of new social problems, the department provides leadership in the areas of policy, practice, and research and in the development of an innovative curriculum for training students and professionals to meet the service needs of a multicultural clientele.

The educational program is based on the premise that all students need to acquire a common body of knowledge and basic skills, and a common understanding of the philosophy and values of the profession. These then form a sound foundation for the development of more specialized knowledge and skills along the lines of each student’s interests and the needs of the field.

Students are encouraged to take advantage of the resources within UCLA by selecting elective courses in related disciplines. In addition, as a department within the Luskin School of Public Affairs, the program affords students instructional opportunities in the other affiliated departments—Public Policy and Urban Planning.

Beyond national opportunities in the profession of social work, there is increasing demand for qualified and experienced social workers to serve in the international field, where many social service programs are conducted under the auspices of the United Nations, the U.S. government, and national sectarian organizations. Graduates of the doctoral program generally secure appointments at major universities or research centers.

The challenge to the department, the profession, and those who join us as students is to prepare to forge the paths, build the bridges, and shape the future to ensure that all individuals, families, and communities enjoy better education, better health care, better job training, and better economic futures.

Graduate Majors

Master of Social Welfare

Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Concurrent Degree Program

Concurrent degree programs allow students to reduce the number of courses required for two degrees, since some courses may apply to both degrees.

- Master of Social Welfare/Asian American Studies MA
- Master of Social Welfare/Juris Doctor
- Master of Social Welfare/Master of Public Health
- Master of Social Welfare/Master of Public Policy

Social Welfare PhD

Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Social Welfare

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

100A. Introduction to Social Welfare: Policies and Programs. (4) Lecture, four hours. Origin and development of major U.S. social welfare programs and policies guiding them, with emphasis on analysis of policy developments/issues related to provision of social welfare services. Study of historical and current responses of profession to major social problems. P/NP or letter grading.

100B. Social Welfare Policy: Overview. (4) Lecture, four hours. Requisite: course 100A. Review of existing policy regarding major social issues in field of social welfare. Examination of discrepancy between need and capacity of social agencies to address need. Exploration of differential impact of policy on various populations. P/NP or letter grading.

101. Social Welfare in Multicultural Society. (4) Lecture, four hours. Social policy viewed from perspective of various cultural groups. Students to become aware of their own cultural perspective and learn to recog-
understand how events, successes, and losses at one stage of life can have important effects later in life. Focus on individuals as they age within one particular sociocultural context.

M110. Inequality and Democracy: Analysis and Praxis of Public Problems. (4) (Same as Urban Planning M110.) Lecture, three hours; discussion, one hour. Analysis and praxis of public problems. Taking up social theory, political economy and critical thinking—biopsychosocial approach that is based on recognition that aging is inherently interdisciplinary phenomenon, and life course perspective that is distinguished by analytical framework it provides for understanding the interplay between human lives and changing social structures, and allows students to understand social work practice in new ways. Letter grading.

M104C. Diversity in Aging: Roles of Gender and Ethnicity. (4) (Same as Chicano/a and Central American Studies M108B, Gender Studies M104C, Geography M104C, and Public Affairs M131.) Lecture, four hours. Exploration of complexity of variables related to diversity of aging population and variability in aging process. Examination of gender and ethnicity within context of both physical and social aging. In multidisciplinary perspective utilizing faculty from variety of fields to address issues of diversity. Letter grading.

M104D. Public Policy and Aging. (4) (Same as Gerontology M104D.) Lecture, four hours. Examination of theoretical models and concepts of policy process, along with policy and policy-making processes. Description of history of contemporary aging policy. Exploration of current policy issues affecting elderly. P/NP or letter grading.

M104E. Social Aspects of Aging. (4) (Same as Gerontology M104E.) Lecture, four hours. Topics include theories of aging, economic factors, changing roles, social relationships, and special populations. Weekly seminars organized around key aspect of social gerontology. P/NP or letter grading.

105. Social Welfare Policy in Modern America: Historical Perspectives. (4) Lecture, three hours; outside study, nine hours. Historical overview of American social policy dealing with three core societal problems: poverty, sickness, and joblessness. Programs developed by governments to ameliorate these problems have typically been public insurance programs or cash transfers such as unemployment insurance, welfare, and Social Security. Students trace the evolution of these programs and their constituent elements. Examination of changes in specific agencies and roles under instruction of a faculty member and a UCLA faculty member. P/NP or letter grading.


M140. Introduction to Study of Aging. (4) (Same as Psychology M140.) Lecture, three hours. Designed for juniors/seniors. Perspectives on major features of human aging—biological, social, psychological, and humanistic. Introduction to range of influences on aging to prepare students for subsequent specialization. P/NP or letter grading.

M142X. Intergenerational Communication across Lifespan. (4) (Same as Sociology M142X and Social Welfare M129X.) Lecture, three hours; fieldwork, one hour. Limited to juniors/seniors. What do you say to your parents in conversation? How do you talk to your grandparents? Does your family talk well to one another as group? How do you communicate well with boss who is 30 years older than you? Individuals of all ages interact with one another, often with significant consequences throughout their lives. Introduction to psychoanalytic, interpersonal, and societal issues related to intergenerational communication across lifespan. Letter grading.

M151. Child Welfare Policy in America. (4) (Formerly numbered 151.) (Same as Public Affairs M124.) Lecture, three hours. Limited to juniors/seniors. Examination of public child welfare system in the U.S. Review of social policies and programs for children, including discussion of orphanages, foster care, and adoptions. Transformation of public child welfare system over the last 200 years. Child welfare reform on child policies and programs in the U.S. Major programs designed to provide safety net for disadvantaged children, including foster care, child care, support and children’s allowance programs. Review of research and analysis in this area. Overview of social policies and programs that impact children in the U.S. with respect to other countries. P/NP or letter grading.

162. Health Policy and Services. (4) Seminar, three hours. Limited to juniors/seniors. Contemporary issues in healthcare financing and delivery and historical perspective on these issues. Role of government in healthcare and ways controversy about this role continues to shape and constrain public policy in health. Major public programs, notably Medicare and Medicaid, and their relationship to issues of access and cost for diverse vulnerable populations. Various public and private approaches to healthcare reform and ways of thinking about their predicted impact, cost, and political feasibility. Issues in healthcare reform, including chronic illness and debate about public and private approaches to long-term care reform. Social work roles in healthcare policy and practice. P/NP or letter grading.

163. Prevention of Risky Substance Use and Related Problems. (4) Lecture, four hours. Limited to juniors/seniors. Prevention of substance use and related harms from legal and illegal substances is major concern on college campuses, community centers, and schools. Examination of research related to patterns of drug use and related harm (such as crime and mental health disorders) and effectiveness of interventions to reduce these harms. Through examples, students explore evidence-based programs and policies, evaluation of effectiveness of evidence-based interventions to increase student knowledge, skills, and expertise in determining effective strategies for reducing drug use and related harm, using most up-to-date information. P/NP or letter grading.

164. HIV Prevention in U.S. and Developing World. (4) Lecture, four hours. Limited to juniors/seniors. Examination of various approaches to HIV prevention, drawing on infectious disease paradigms from public health and theories of behavior change from fields of psychology, sociology, and communications. Sexual health education interventions, community-based prevention programmes and policies, evaluation of effectiveness of evidence-based interventions to increase student knowledge, skills, and expertise in determining effective strategies for reducing drug use and related harm, using most up-to-date information. P/NP or letter grading.

M165. Disability Policy and Services in Contemporary America. (4) (Same as Disability Studies M130 and Gerontology M165.) Lecture, three hours. Limited to juniors/seniors. Growing numbers of people of all ages with disabilities are leading active and productive lives in American communities. Many others are struggling to lead such lives. Who are people with disabilities in contemporary America? How does our U.S. respond to these needs? How do people respond to the disability demands made over time by disability advocates? How has government addressed demands of advocates for various disability populations? What do these demands mean for the future? How do these demands impact policy in the future? How do these demands continue to shape and constrain public policy in health? How do demographic, economic, and political factors influence public and private policies and programs? Letter grading.
188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SB. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: course 188SA. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to finalize course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced corequisite: course 188SB. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE 885 course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Letter grading. Corequisite content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors and departmental honors programs. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

191. Variable Topics Research Seminars: Social Welfare. (4) Seminar, three hours; outside study, nine hours. Examination in depth of particular subfields of social welfare (e.g., child welfare, children and youth, nonprofit, health, mental health). Limits of investigation set by individual instructor. May be repeated for credit with topic change. Letter grading.

194. Internship Seminars: Social Welfare. (1) Seminar, one hour; outside study, three hours. Corequisite: course 194S. Open to freshmen. Introduction to topics relevant to psychosocial determinants of children’s well-being. Emphasis on resource children and families, with opportunity to gain breadth and depth of knowledge in seminar setting. May be repeated for credit. P/NP grading.

195. Community Internships in Social Welfare. (2 or 4) Tutorial, four hours. Corequisite: course 194. Open to freshmen. Introductory course in community-based child health and advocacy. Students learn about community resources for children and families through service learning experience and work with pediatric patients and families in UCLA pediatric unit. Students meet on regular basis with instructor and provide periodic reports of their experience. May be repeated for credit. Letter grading. Corequisite content noted on transcript. P/NP grading.

199. Directed Research in Social Welfare. (2 or 4) Tutorial, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Capping paper required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

203A-203B-203C. Integrative Seminars. (4–4–4) Seminar, two and one half hours. Integrative courses that bring together theory and practice of social work in various selected areas of profession. Includes identification of problem areas and populations at-risk requiring further examination. S/U or letter grading.

M203X. Special Topics in Public Affairs. (4) Same as Public Policy M201C and Urban Planning M210A. Seminar, three hours; outside study, nine hours. Advanced seminar on emerging issues across public policy, social welfare, and urban planning. May be repeated for credit. S/U or letter grading.

M206A. Homelessness: Housing and Social Service Issues. (4) Same as Urban Planning M270L. Lecture, 90 minutes; discussion, 90 minutes; one field trip. Review of current status of homelessness; who homeless are, what social services and housing are available, and existing and proposed programs—appropriate architecture, management, and sources of funding. Outside speakers include providers of services to homeless. Letter grading.


201E. Foundations of Social Work Practice II. (4) Lecture, two and one half hours. Corequisite: course 401B. Weighing and carrying out evidence-supported practices based on differential assessment of people and their contexts. Topics include intervention approaches: case management, motivational interviewing, crisis intervention, cognitive, task-centered, and solution-focused therapies, as well as interventions appropriate for family functioning, small group processes, and environmental modification (advocacy and community organization). Continued evaluation of outcomes. Letter grading.

210C. Foundations of Social Work Practice III. (4) Lecture, two and one half hours. Introductions to sociological, theoretical, and empirical social work practice. Core concepts of social work practice in organizational, community, and policy settings. Exploration of leadership style and development of personalized group work skills. Role of macro practice in agency-based social work in advancing strategies of organizational and social change. Interface and interaction among policy decisions, community needs, and program planning. Policies and issues influence formation, implementation, and evaluation of social welfare programs, policies, and services. Analysis of social, economic, and political context of community practice in order to work effectively with communities. Letter grading.


211B. Human Behavior in Social Environment: Theoretical Perspectives in Social Work and Social Welfare II. (4) Lecture, two and one half hours. Concerted study of theories of social function focusing on covering various perspectives on roots and significance of racism and other forms of oppression in U.S. (and other societies) today. Forces contributing to initiation and maintenance of oppression and inequality across social categories such as race, ethnicity, gender, sexuality, religion, ability, and age. Letter grading.


213A. Social Welfare Research Methods. (4) Lecture, two and one half hours. Review of various research methodologies, including experimental and quasi-experimental designs, survey research methods, qualitative methods, and single subject and group-based research designs. Emphasis on applying research pertaining to social welfare and social science research. Students learn and practice formulating research questions, research questions, and hypotheses and learn how to critically review theory and research. Measurement, sampling procedures, and basic descriptive statistics. Letter grading.

213B. Applied Statistics in Social Welfare. (4) Lecture, two and one half hours; discussion, one hour. Core statistics course builds on research methods taught in course 213A, and designed to help students develop basic understanding of descriptive and inferential statistical approaches. Introduction to statistical reasoning, with emphasis on how data analysis and interpretation can help us understand world. Topics include numerical and graphical summaries of data, data acquisition and experimental design, probability, hypothesis testing, confidence intervals, correlation, and regression. Letter grading.

214A. Foundations of Social Welfare Policy. (4) Lecture, two and one half hours. Overview of key areas of social welfare policy. Roots of American social welfare policy, with examination of how the policy has evolved and how to present day. Specific events and important individuals that have influenced public policy affecting vulnerable populations, such as racial and ethnic minorities, women, the poor, and other diverse populations. Examination of role of social research in informing social welfare policy. Letter grading.

214B. Leadership for Social Change. (4) Lecture, two and one half hours. Examination of leadership and social policy elements for effective social change in dynamic and diverse society. Builds on foundations of social welfare history and policy development. Examination of elements of policy advocacy and competencies for effective social work leadership in organizational and community settings and integration of research and theory in addressing and resolving complex social issues. (Same as Urban Planning M231.) Lecture, three hours; outside study, nine hours. Conceptually, focus on interplay between three of the institutional complexes of modern globalizing societies and organizations that operate within them: state, market, and civil society. Study moves between abstract theory and concrete examples, offers sense of where these institutions and organizations have come from, and helps chart their present trajectories. From perspective of governance, assessment of roles and configurations of institutions and organizations to address today’s challenges. S/U or letter grading.

223. Seminar: Social Work Profession. (2) Seminar, two hours. Nature and role of social work in contemporary society; relationships with other professions; probable future trends in profession; social work ethics, professional organizations, certification licensing; professional responsibility continued self-critique and improvement of professionalism. S/U grading.

229A. Craft of Social Welfare Scholarship I. (4) Lecture, three hours; outside study, nine hours. Limited to PhD students. Exploration of one problem for study—its history, current state of knowledge about why problem exists, and ways of thinking about it. Survey of several problems and alternative ways in which problems have been conceptualized and studied to understand how scholars use theory and empirical evidence to advance what is known, what is yet unknown, where there are important gaps in understanding particular problems, and what might be done to solve them. Letter grading.
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229B. Craft of Social Welfare Scholarship II. (4) Lecture, three hours; outside study, nine hours. Enforced requisite: course 229A. Limited to PhD students. Continued narrative in student focus on one social welfare research project, moving from understanding of evolution and context of general problem to more detailed and intensive review of research literature on specific researchable question to identify one or more critical gaps in knowledge to explore. Discussion of different methods of summarizing research literature, identifying seminar study and interpreting contradictory findings. Regular meetings to discuss ongoing work and to encourage students to review their work with their faculty advisers and/or other mentors with expertise in their problem areas. Letter grading.

229C. Craft of Social Welfare Scholarship III. (2) Lecture, 90 minutes; outside study, four and one half hours. Enforced requisite: course 229B. Limited to PhD students. Focus on craft of scholarly writing for publication to help students develop effective narrative frame for presentation, make choices about extent of detail and shape of literature review, and achieve cogent presentation and conclusion. Consideration of elements of effective professional writing. Letter grading.

231A. Family Systems Interventions. (4) Lecture, two and one half hours. Application of theories and techniques to work with couples and families in a social work practice. Examples of social work practice with couples and families may include developing relationship skills for those struggling with mental illness; support for family caregivers of impaired or frail elderly; parent education and skill development for welfare recipients; individual, couple, and family interventions for victims of abuse; bereavement support groups. Seminar helps students to recover from experiences with substance abuse, domestic violence, sexual difficulties, and more. S/U or letter grading.

231B. Advanced Social Welfare Practice. (4) Lecture, two and one half hours; outside study, nine hours. Corequisite: required social work practicum. Advanced-level, critical analysis of theories, concepts, and principles underlying social casework practice. Specific attention to deviation and stress as conditions affecting functioning of individuals and groups and to diagnostic knowledge and competence required in rehabilitation and prevention. S/U or letter grading.

231C. Advanced Social Welfare Practice: School Social Work. (4) Lecture, two and one half hours; outside study, nine hours. Integration of theory and practice as they pertain to work in school settings. Biopsychosocial/ecological assessment of students (including, but not limited to, differences due to ethnic and/or cultural diversity and to students who are learning disabled, emotionally disturbed, impaired or frail elderly; parent education and skill development for welfare recipients; individual, couple, and family interventions for victims of abuse; bereavement support groups. Seminar helps students to recover from experiences with substance abuse, domestic violence, sexual difficulties, and more. S/U or letter grading.

231D. Advanced Social Welfare Practice: Health. (4) Lecture, two and one half hours; outside study, nine hours. Corequisite: required social work practicum. Advanced-level, critical analysis of various roles that social workers occupy in health settings and strategies for working with various client populations, including stigma, criminalization, cultural bias, and gaps in knowledge. S/U or letter grading.

231E. Advanced Social Welfare Practice: Mental Health. (4) Lecture, two and one half hours; outside study, nine hours. Corequisite: required social work practicum. Advanced-level, critical analysis of various roles that social workers occupy in health settings and strategies for working with various client populations, including stigma, criminalization, cultural bias, and gaps in knowledge. S/U or letter grading.

231F. Advanced Social Welfare Practice: Gerontology. (4) Lecture, two and one half hours; outside study, nine hours. Evidence-based practice training with children and their caregivers in agency-based settings. Integration of theoretical bases of practice with associated methodological, ethical, and on-going practice concerns. Corequisite: required social work practicum. Advanced-level, critical analysis of various roles that social workers occupy in health settings and strategies for working with various client populations, including stigma, criminalization, cultural bias, and gaps in knowledge. S/U or letter grading.

231G. Advanced Social Welfare Practice: Community Mapping. (4) Lecture, two and one half hours; outside study, nine hours. Corequisite: required social work practicum. Advanced-level, critical analysis of various roles that social workers occupy in health settings and strategies for working with various client populations, including stigma, criminalization, cultural bias, and gaps in knowledge. S/U or letter grading.

231H. Advanced Social Welfare Practice: Institutional and Human Service Management. (4) Lecture, two and one half hours; outside study, nine hours. Corequisite: required social work practicum. Conceptual framework and analytic tools for understanding organizational features of human services. Human service organizations work on people to improve, sustain, or prevent decline of well-being. Because of their function these organizations have both a special relationship with clients and with other organizations. Examination of these attributes, theoretical perspective to study them, and analysis of factors that shape nature of work they do. Examination of determinants of relationships between workers and clients by looking at such variables as policy environ-
241J. Advanced Social Welfare Practice: Community Practice. (4) Lecture, two and one half hours; outside study, nine hours. Corequisite: required social work practicum. Designed to deepen student knowledge of community practice methods and empirical base that supports these methods in field of social welfare. Theory, practice, and research methods related to major community practice approaches in context of evidence-based philosophies and processes. Development of skills to address community problems using best available data by applying course concepts to student learning experience. Letter grading.

241K. Advanced Social Welfare Practice: Policy Practice. (4) Lecture, two and one half hours; outside study, nine hours. Corequisite: required social work practicum. Focus on various forms of policy advocacy and communication, learning necessary skills to construct functional grant proposals. Application of problem-solving knowledge to development of human service grants. Various steps in writing grant proposals and opportunity to design/prepare grant proposals. S/U or letter grading.

242. Resilience, Risk, and Thriving among Children and Families. (4) Lecture, two and one half hours. Corequisites: required for semester one and Fall/Winter Well-Being area of concentration. Introduction to advanced study of children and family well-being from social work perspective. Conveys seminal knowledge of key settings and experiences that impact children and family functioning. Drawing from resilience theory and empirical research, review of aspects of contexts such as parenting and family systems, schools, and neighborhoods—that serve as risk and protective factors for healthy childhood development. Emphasis on prevention efforts to ensure healthy development for all youth, stop family violence, and increase social connections for professional roles of social workers who serve, advocate for, and empower children and families around relevant social and economic justice issues. Letter grading.

249A. Introduction to Luskin PhD Research. (4) (Formerly numbered 249FR.) Lecture, three hours; discussion, three hours. Corequisites: required of first-year PhD students. Introduction to design and execution of public affairs research; exploration of subfields of public affairs scholarship and approaches to research on contemporary topics in social welfare and urban planning. Preparation and filing of PhD program of study. Letter grading.

249B. Introduction to Qualitative Research. (4) (Formerly numbered 249QR.) Lecture, two and one half hours; discussion, two hours. Corequisites: required of second-year PhD students. Introduction to qualitative research methods. Focus on design, data collection, coding, and analysis of qualitative data. Letter grading.

254. Logic of Inference and Causation. (4) Lecture, three hours. Discussion, one hour. Corequisite: required of all PhD students who have passed their field work plan for team members. S/U or letter grading. A self-contained course that introduces students to the basic logic of statistical models. Topics include the logic of inference and causation, the statistical models associated with these concepts, and the methodology and techniques for testing hypotheses.

258. Applied Research Design: Dissertation and Qualitative Analysis. (Same as Urban Planning 258C.) Seminar, three hours. Corequisite: required of all PhD students who have passed their field work plan. S/U or letter grading. This course is designed to provide in-depth understanding of the research process and skills necessary for conducting research in social sciences. Students will develop range of research skills and understanding of ethical procedures in research. Students participate in various activities depending on specific research project with which they work. Activities include research tasks such as conducting literature reviews, developing research questions and selecting data sources, cleaning and preparing data, analyzing data, and writing up research findings for conference and journal submissions. Students work closely with their faculty mentor and other graduate students. Introduction to research process and skills necessary for conducting research in social sciences. In Progress (284A, 284B) and S/U or letter (284C) grading.

260A. Research Capstone I: Project Development. (4) Lecture, two and one half hours. Formulation of research questions, problems, and hypotheses that guide critical review of literature and illuminate understanding of interest area. Working in groups to three or four, development of proposal for research capstone project that includes literature review and outline plans for data collection and analysis. Students will prepare for research capstone project. S/U or letter grading. This course is designed to provide in-depth understanding of particular topics in area of applied statistics/measurement to graduate students engaged in conducting research in broad array of fields that comprise social sciences. Letter grading.

260B. Research Capstone II: Data Gathering, Analyses, and Interpretation. (2) Research group meeting, two hours. Supports students in implementing their research capstone, including data gathering and preliminary analysis, oral presentation, and final report. S/U grading. This course is designed to provide a foundation for social work students to engage in advanced research and methodology.

260C. Research Capstone III: Data Gathering, Analyses, and Interpretation. (2) Research group meeting, two hours. Analysis and interpretation of data and finalization of presentation formats of results. Grounding of interpretation of results in existing literature and discussion of findings for real-world applications. In Progress (280C) grading. This course is designed to provide in-depth understanding of the research process and skills necessary for conducting research in social sciences. Students will develop range of research skills and understanding of ethical procedures in research. Students participate in various activities depending on specific research project with which they work. Activities include research tasks such as conducting literature reviews, developing research questions and selecting data sources, cleaning and preparing data, analyzing data, and writing up research findings for conference and journal submissions. Students work closely with their faculty mentor and other graduate students. Introduction to research process and skills necessary for conducting research in social sciences. In Progress (284A, 284B) and S/U or letter (284C) grading.

265. Research in Child Welfare. (4) Lecture, three hours. Overview of research in aging. Development of research questions, selecting appropriate theoretical frameworks, conducting literature reviews, selecting appropriate research design, identifying sampling methods. Special considerations in aging research, including ethical considerations, designing and implementing research project with which they work. Activities include survey, panel, experimental observation, and theory development research. S/U or letter grading.

266. Research in Gerontology. (4) Lecture, three hours. Overview of research in aging. Development of research questions, selecting appropriate theoretical frameworks, conducting literature reviews, selecting appropriate research design, identifying sampling methods. Special considerations in aging research, including ethical considerations, designing and implementing research project with which they work. Activities include survey, panel, experimental observation, and theory development research. S/U or letter grading.

267. Research in Health. (4) Lecture, three hours. Research in area of health policy and services. Discussions of readings about range of research from field of health services, identification of research design issues, design of research instruments, analysis of strengths and limitations of current approaches to health services research, consideration of alternative roles for social work in health care delivery. Letter grading.

268. Research in Mental Health. (4) Lecture, three hours. Research in area of mental health policy and services. Discussions of experimental designs, survey research methods, ethnographic research, case study methods, object design, and observational methods. Operational definition of variables and selection and design of appro-
285H. Program Evaluation Research. (4) Lecture, three hours; discussion, one hour. Analysis of the comparison between evaluation and other research, alternative program evaluation methods, roles and limitations of evaluation research in real world, development of proposals for feasible program evaluation research. Letter grading.

285I. Research in Youth Populations. (4) Lecture, three hours. Research methods as applied to problems, issues, and interventions pertaining to youth populations. Under faculty supervision, enabling students to apply research skills developed in prior courses. May be repeated for credit. S/U grading.

286A. Survey of Research Methods. (4) Seminar, three hours. Basic concepts underlying research methods. Content includes theoretical and conceptual approaches to research problem formulation; research design, including experimental, comparative, and survey; sampling; statistical methods; methods of observation and techniques of data analysis. Letter grading.

286B. Advanced Research Methods. (4) Seminar, three hours. Advanced concepts underlying research methods. Instruction and experience in applying theoretical and practical approaches to research problem formulation; research design, including experimental, comparative, and survey; sampling; statistical methods; methods of observation and techniques of data analysis. Letter grading.

286C. Research Internship. (4) Fieldwork, four hours. Supervised study and training through participation in on-going research project or one initiated by students and carried out under faculty supervision. Enabling students to apply research skills developed in prior courses. May be repeated for credit. S/U grading.

289B-290B-290C. Seminars: Social Work. (4–4–4) Seminar, three hours; outside study, nine hours. Series courses. May be repeated for credit. S/U or letter grading.

290D. Criminal Justice and Mass Incarceration. (4) Lecture two and one half hours. Exploration of the relationship between social welfare and criminal justice system focusing on mass incarceration organization, reform, and reentry. Examination of life trajectories, development of and response to gangs in U.S. and globally. Examination of origin and development of major criminal justice systems and gang-related systems. Relationship to punishment, incarceration, death penalty, and development and endurance of prison gangs. Analysis of criminal justice system history, future directions, and capacity of social welfare programs to address needs of marginalized populations. Letter grading.

290E. Lesbian, Gay, Bisexual, and Transgender Health Law, and Public Policy. (4) Lecture two and one half hours. Examination of LGBTQ-identified communities and their mobilization of health disparities that exist within broad conception of LGBTQ-identified communities, including disparities among most marginalized individuals and those living at intersections of multiple identities. Use of law and policy by situating goal of achieving health equity for LGBTQ communities in current political climate. Opportunities to evaluate how better health outcomes for LGBTQ people can be brought by bringing intersectional scientific research to bear in shaping health and policy matters moving forward. Letter grading.

290F. Firearm Violence Prevention. (4) Lecture, two and one half hours. Integration of research to up-to-date way of thinking about firearm-related violence. Examination of range of topics connected to contemporary debates about firearm violence in U.S. using collection of philosophical, social, and epidemiological literature. Ways of thinking theoretically and scientifically about causes and consequences of firearm violence in different contexts, from mass shootings to firearm suicides. Major theories advanced to explain firearm violence, methods used in scientific study of firearm violence, and implications and findings about correlates, patterns, processes, and trends related to firearm violence. S/U or letter grading.

290G. Psychotropic Drugs and Medications: Harm Reduction Policies. (4) Lecture, two and one half hours. Understanding and implications of harm reduction approaches to legal (including prescription) and illegal psychoactive drug use in U.S. and elsewhere. Visions and obstacles for future management of psychoactive drugs such as opioids, stimulants, psychedelics, and benzodiazepines according to harm reduction principles. Implications for social work practice across lifespan. Letter grading.

290I. Children with Special Healthcare Needs: Systems Perspective. (4) Seminar, as Community Health Sciences M420 and Health Policy M420.) Lecture, three hours; fieldwork, one hour. Examination and evaluation of principles, policies, programs, and practices that have evolved to identify, assess, and meet special needs of children, infants, and adolescents with developmental disabilities or chronic illness and their families. Letter grading.

290J. Child Welfare Policy. (4) (Same as Public Policy M213.) Lecture, three hours. Examination of evolution of social policy and services for mentally ill, with emphasis on political, economic, ideological, and sociological factors that affect views of mentally ill and services they are provided. S/U or letter grading.

290L. Poverty, Poor, and Welfare Reform. (4) (Same as Public Policy M214 and Urban Planning M246.) Lecture, three hours. Major policy and research issues concerning poverty and social welfare policy directed toward poor in U.S. or letter grading.

290M. Health Policy. (4) (Same as Public Policy M215.) Lecture, three hours. Introduction to contemporary issues in healthcare financing and delivery; providing historical perspective on emergence of these issues. Examination of major public health programs and their relationship to issues of access and cost. S/U or letter grading.

290N. Public Policy for Children and Youth. (4) (Same as Public Policy M216.) Lecture, three hours. Policy issues that affect children and adolescents in relation to their interaction with schools and community, with emphasis on impact of policy across federal, state, and local levels. S/U or letter grading.

290P. Aging Policy, Elderly and Families. (4) (Same as Public Policy M261.) Lecture, three hours; outside study, nine hours. Designed for graduate students. Examination of theoretical models and concepts of policy process and policy application to aging policy. Analysis of decision-making processes that affect social policies. Description of historical development of contemporary policy. Examination of current proposals and issues. Letter grading.


290S. Politics, Power, and Philanthropy. (4) (Same as Public Policy M227 and Urban Planning M287.) Lecture, three hours; outside study, nine hours. Use of political and policy frameworks to understand resultant social dynamics and roles that have shaped rise and characteristics of nonprofit sector and its constituent elements. Examination of social history of nonprofit sector in U.S. Exploration of legal and policy environments and distinct organizational forms. Comparative perspective between U.S. and other countries. S/U or letter grading.

290T. Juvenile Justice Policy. (4) Lecture, two and one half hours; outside study, nine hours. Designed for graduate students. Exploration of evolution of juvenile justice system in U.S. and issues that have shaped current-day practice. Role of social workers in system today. Involvement throughout the development of role of U.S. housing policy and role of government agencies and community organizations. Is problem housing or economic development? Should interventions be directed toward inner city housing markets or through neighborhood strategies? What lessons can be learned from experiences of other countries? Letter grading.

290W. International Social Welfare. (4) Lecture, three hours; outside study, nine hours. Intended for graduate students interested in pursuing analysis of key international social welfare issues. Topics approached from perspective of globalization of social, economic, and political activities. Property, social injustice and inequality, and issues of racial, ethnic, and cultural diversity, with emphasis on multi-faceted contributions of social work, social services, and social welfare policy and development within rich and poor countries. Acquisition of knowledge of international social welfare activities, as well as analytical skills to address and debate complex international issues. S/U or letter grading.

M290X. Comparative Perspective on States, Markets, and Civil Society. (4) (Same as Public Policy M247 and Urban Planning M241B.) Lecture, two and one half hours. Governance is about solving and managing societal problems, such as climate change, poverty, migration, security, mobility, pollution, or trade relations. Contemporary governance is complex set of laws, rules, and regulations that establish and reframe the responsibilities of three institutional complexes of modern societies (state, market, and civil society), interests that guide them, and legitimacy and resources they command. Actors often reach across systemic, jurisdictional, and national boundaries; their relationships can be cooperative, neutral, or fraught with conflict, and governance outcomes can vary significantly. These dynamics involve institutional challenges and, consequently, require significant governance readiness. Lectures, debates, in-class exercises, and student presentations. Exploration of several issues in more detail, e.g., types of state capacities, democracy, crime management, governance innovation, and specific policy fields such as infrastructure or global finance. S/U or letter grading.

M297B. Current Issues in Public Affairs. (2) (Same as Public Policy M297C and Urban Planning M297B.) Lecture, one to two hours. Introduction to wide range of current issues in public affairs. Luskin school faculty present material from their research and teaching. Assigned readings are distributed in advance of each meeting. S/U grading.

M297F. Career Planning and Management. (2) (Same as Public Policy M297F and Urban Planning M297F.) Tutorial, six hours. Directed individual professional development needs of first-year Public Policy, Social Welfare, and Urban Planning students. Development of career management skills while balancing both academic and social life. More than just deciding on chosen career path, career planning management involves taking concrete steps to become career ready. Students gain fundamental career management skills, competitive résumé, and interviewing skills, creating competitive résumé and practicing interviewing articulately. Offers opportunity to learn professional development skills to assist with career planning strategy.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice person personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guid-
Society and Genetics, Institute for

Overview

The Human Biology and Society major provides a rigorous interdisciplinary education in current issues at the intersection of human biology, genetics, and society where bridging the institutional divide between the life sciences and human sciences (humanities and social sciences) is necessary.

The teaching strategy emphasizes the value of synthetic, integrative thinking. Learning can best be organized synthetically around the sorts of knowledge and skills required to investigate and address such problems rather than by building up from the stepwise sequences of traditional disciplines. Preparation for the majors is centered on three areas of study that together prepare students to solve problems at the intersection of biology and society: genes and gene expression; human evolutionary biology; and society, diversity, and identity. The majors provide an important integrative space where different ways of knowing in the human and life sciences are explored, interrelated, and applied. Core and capstone courses emphasize problem-based learning about pressing issues that inextricably link society, culture, and biology, such as medical privacy rights, gene patents, regulation of stem cell research, and questions of race, gender, and identity.

Programmatically, the majors consist of required elements that develop critical thinking skills, knowledge, and excellence in written and spoken communication; and extracurricular involvement in academic research and corporate/community internship. The mission is to educate students who become leaders in diverse areas such as law, medicine, humanities, social sciences, and biological sciences, and to have them interact and work together to form a deep understanding of the issues at the intersection of human social systems, evolutionary biology, and genetics.

The minor in Society and Genetics provides undergraduate students with the opportunity to understand and probe the complex problems and possibilities presented by modern genetics, with special attention to their social context and content. Given the dynamic interaction between genetics and the social world in which it is embedded, the minor is of necessity multidisciplinary and emphasizes a collaborative cross-disciplinary approach to instruction in the core courses of the minor and exposure to a wide range of disparate scholarship through elective courses available in such areas as anthropology, biology, history, philosophy, public policy, and sociology.

Undergraduate Majors

Human Biology and Society BA

Learning Outcomes

The Human Biology and Society major has the following learning outcomes:

- Demonstrated strong foundation of knowledge in social science and evolutionary biology and genetics.
- Skills to critically analyze and evaluate qualitative and quantitative data and social biological theories.
- Formulation of effective and convincing written and oral arguments that integrate biological and social evidence.
- Work well in multidisciplinary teams.
- Skills at communicating across disciplines and leveraging knowledge from multiple perspectives.
- Demonstrated proficiency in at least one area of concentration at the interface between biology and society.
- Integration of ethical, legal, and societal concerns in planning, conducting, and assessing research.
- Use of societal and biological information to critically assess complex real-world problems and to employ interdisciplinary skills to help solve them.

Entry to the Major

Admission

Admission to the Human Biology and Society BA major is by application and competitive, using courses, grades, grade-point averages, and personal statements as minimum standards for consideration. Only a limited number of students are admitted each year. Applicants are not automatically accepted into the major. Students must apply for major standing at the beginning of spring quarter of their sophomore year. Applications submitted after the spring quarter deadline are not considered. Only a limited number of students are admitted each year. Applicants are not automatically accepted into the major. Students must apply for major standing at the beginning of spring quarter of their sophomore year. Applications submitted after the spring quarter deadline are not considered. Only a limited number of students are admitted each year. Applicants are not automatically accepted into the major. Students must apply for major standing at the beginning of spring quarter of their sophomore year. Applications submitted after the spring quarter deadline are not considered. Only a limited number of students are admitted each year. Applicants are not automatically accepted into the major. Students must apply for major standing at the beginning of spring quarter of their sophomore year. Applications submitted after the spring quarter deadline are not considered. Only a limited number of students are admitted each year. Applicants are not automatically accepted into the major. Students must apply for major standing at the beginning of spring quarter of their sophomore year. Applications submitted after the spring quarter deadline are not considered. Only a limited number of students are admitted each year.

Pre-major standing is not required to apply for the major. A copy of the major application is available on the department major web page.
Pre-major

Incoming first years may be admitted as pre-majors on acceptance to UCLA. All other students must first complete Society and Genetics 5, M71A, or M72A, and then contact the undergraduate counselor in 3360 Life Sciences to request pre-major standing.

Transfer Students

Transfer applicants to the Human Biology and Society BA major with 90 or more units must complete the following preparatory courses prior to admission to UCLA: one year of general biology (the equivalent of Life Sciences 7A, 7B, and 7C), introductory chemistry, one statistics course, one anthropology human evolution course, and four introductory social sciences or history courses. Society and Genetics 5 must be taken at UCLA once a transfer student is admitted to the University.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major

Required: One core course from Society and Genetics 5, M71A, or M72A; and Anthropology 1, Chemistry and Biochemistry 14A or 14AE, Life Sciences 7A, 7B, 7C, Statistics 10 or 13, and four social theory courses (minimum of 16 units) from African American Studies 1, M5, 6, American Indian Studies M10, Anthropology 3, Asian American Studies 10 or 10W, 20 or 20W, 40 or 40W, 50 or 50W, Chicana/o and Central American Studies 104, 10B, Clusters M1A through 80CW, English M30, Environment M30, Gender Studies 10, Geography 3, History 3A, 3B, 3C, 3D, 12A, 12B, 12C, Honors Collegium 70A, Labor Studies M1A, M1B, M1CW, 10, Molecular, Cell, and Developmental Biology 50, 60, Philosophy 3, 4, 6, 7, 8, 22 or 22W, Political Science 10, 40, Public Affairs 10, 20, 30, 80, Society and Genetics 125, Sociology 1, or M5.

The Major


Students may additionally choose course options in the subfocus areas of cell development, microbiology and immunology, molecular biology and genomics, psychology, and psychiatry and mental health.

Optional Subfocus Areas

The subfocus options are designed and recommended for students who intend a career in medicine or allied health services or are planning to go on to graduate school in the life or health sciences. Students may optionally select any subfocus area as part of the required elective courses for the major.

Cell Development: Molecular, Cell, and Developmental Biology 138, 165A, 168

Ecology and Evolutionary Biology: Three courses from Anthropology 124P, 124S, 126Q, 128P, Ecology and Evolutionary Biology 100, 116, 120, 121, C126, 129, 130, C135, 175, 176

Microbiology and Immunology: Microbiology, Immunology, and Molecular Genetics 101, C185A, and one course from 103AL, 106, 107, 158, or 168

Molecular Biology and Genomics: Molecular, Cell, and Developmental Biology 144, 172, and one course from CM156, Human Genetics CM124, C144, Microbiology, Immunology, and Molecular Genetics C122, or 158

Physiology: Physiological Science 111A, 111B, and one course from 147, 149, or 177

Population Genetics: Two courses from Ecology and Evolutionary Biology C135, Human Genetics CM124, Society and Genetics 120, and one course from Ecology and Evolutionary Biology 120, C11, or Human Genetics C144

Psychology and Mental Health: Three courses from Psychology M107, 112A, 112B, 115, 127A, 129C

Honors Program

To receive departmental honors, students must take each course in the major for a letter grade and complete all upper-division courses in the major with an overall grade-point average of 3.5 or better. For highest departmental honors, students must complete a research project and receive a grade of A or better in Society and Genetics 108, 197, or 199.

Policies

Preparation for the Major

Each course must be taken for a letter grade, and students must complete all-pre major courses with a cumulative minimum grade-point average of 2.9.

The Major

Each course must be taken for a letter grade and passed with a grade of C– or better, and all courses must be completed with a cumulative minimum grade-point average of 2.9.

Human Biology and Society

BS Learning Outcomes

The Human Biology and Society major has the following learning outcomes:

• Demonstrated strong foundation of knowledge in social science and evolutionary biology and genetics
• Skills to critically analyze and evaluate qualitative and quantitative data and social biological theories
• Formulation of effective and convincing written and oral arguments that integrate biological and social evidence
• Demonstrated broad comprehension of mathematical, physical, and life sciences as preparation for medical school
• Work well in multidisciplinary teams
• Skills at communicating across disciplines and leveraging knowledge from multiple perspectives
• Demonstrated proficiency in at least one area of concentration at the interface between biology and society
• Integration of ethical, legal, and societal concerns in planning, conducting, and assessing research
• Use of societal and biological information to critically assess complex real-world problems and to employ interdisciplinary skills to help solve them
• Use of societal and biological information to critically assess complex real-world problems and to employ interdisciplinary skills to help solve them

Entry to the Major

Admission

Admission to the Human Biology and Society BS major is by application and competitive, using courses, grades, grade-point averages, and personal statements as minimum standards for consideration. Only a limited number of students are admitted each year. Applicants are not automatically accepted into the major.
Students must apply for major standing at the beginning of spring quarter of their sophomore year. Applications submitted after the spring quarter deadline are considered during fall quarter of the junior year only as space in the program permits. No applications are considered after fall quarter of the junior year.

Pre-major standing is not required to apply for the major. A copy of the major application is available on the department major web page.

Transfer Students
Transfer applicants to the Human Biology and Society BS major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of general biology with laboratory for majors, and one year of general chemistry with laboratory for majors, and one semester of organic chemistry with laboratory.

Transfer applicants must also complete at least two of the following introductory courses prior to admission to UCLA: one year of general chemistry equivalent to Life Sciences 7A, 7B, and 7C, one year of calculus, one year of general chemistry with laboratory for majors, and one semester of organic chemistry with laboratory.


Students may additionally choose course options in the subfocus areas of cell development, microbiology and immunology, molecular biology and genomics, physiology, and psychology and mental health.

Optional Subfocus Areas
The subfocus options are designed and recommended for students who intend a career in medicine or allied health services or are planning to go on to graduate school in the life or health sciences.

Students may optionally select any subfocus area as part of the required elective courses for the major.

Cell Development: Molecular, Cell, and Developmental Biology 138, 165A, 168
Ecology and Evolutionary Biology: Three courses from Anthropology 124P, 124S, 126Q, 128P, Ecology and Evolutionary Biology 100, 116, 120, 121, C126, 129, 130, C135, 175, 176
Microbiology and Immunology: Microbiology, Immunology, and Molecular Genetics 101, C185A, and one course from 103AL, 106, 107, 158, or 168

Molecular Biology and Genomics: Molecular, Cell, and Developmental Biology 144, 172, and one course from CM156, Human Genetics CM124, C144, Microbiology, Immunology, and Molecular Genetics C122, or 158

Physiology: Physiological Science 111A, 111B, and one course from 147, 149, or 177

Population Genetics: Two courses from Ecology and Evolutionary Biology C135, Human Genetics CM124, Society and Genetics 120, and one course from Ecology and Evolutionary Biology 120, 121, or Human Genetics C144

Psychology and Mental Health: Three courses from Psychology M107, 112A, 112B, 115, 127A, 129C

Honors Program
To receive departmental honors, students must take each course in the major for a letter grade and complete all upper-division courses in the major with an overall grade-point average of 3.5 or better. For highest departmental honors, students must complete a research project and receive a grade of A or better in Society and Genetics 108, 197, or 199.

Policies
Preparation for the Major
Each course must be taken for a letter grade, and students must complete all pre-major courses with a cumulative minimum grade-point average of 2.5.

The Major
Each course must be taken for a letter grade and passed with a grade of C– or better, and all courses must be completed with a cumulative minimum grade-point average of 2.0.

Undergraduate Minor
Society and Genetics Minor
Admission
Admission to the Society and Genetics minor is by application and competitive, using courses, grades, grade-point averages, and personal statements as minimum standards for consideration. Applicants must be in their junior year and have an overall grade-point average of 2.5 or better. Only a limited number of students are admitted each year. Applicants are not automatically admitted into the minor.

Students must apply for admission to the minor at the beginning of fall quarter of their junior year. No applications are considered after that.

Information about the application process is available on the minor website and by consultation with the undergraduate counselor in 3360 Life Sciences.

The Minor
Required Upper-Division Courses (30 to 34 units): Society and Genetics 101 (or, if Life Sciences 107 has been completed, one course...
from the approved list of electives), 102, 191S, and at least four additional upper-division elective courses (minimum 16 units) from the approved list.


Policies

Students may petition to have a course not on the approved list applied toward the four-course elective requirement. Contact the undergraduate counselor in 3360 Life Sciences.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade of C- or better. Successful completion of the minor is indicated on the transcript and diploma.

Society and Genetics

Lower-Division Courses

5. Integrative Approaches to Human Biology and Society. (4) Lecture, three hours; discussion, one hour. Introduction to concept of problem-based approaches to study of biology and society and areas of concentration, such as bioethics and public science policy, evolutionary biology, culture, and behavior, historical and social studies of life sciences, medical genetics and public health, and population genetics and history, and central thematic issues shared across concentrations, such as commercialization of life and public understanding of science. Letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

M71A-M71B-M71CW. Biotechnology and Society. (6-6-6) (Same as Clusters M71A-M71B-M71CW) Course M71A is enforced requisite to M71B, which is enforced requisite to M71CW. Limited to first-year freshmen. M71A-M71B, Lecture, three hours; discussion, two hours. Exploration of methods, applications, and implications of biotechnology and of ethical, socio- political, and political implications as well as biological under- dopings. P/NP or letter grading. M71CW, Special Topics. Seminar, three hours. Enforced requisite: course M71B. Topics include in-depth examination of ethics and human genetics, bioweapons and biodefense, sex and biotechnology. Satisfies Writing II requirement. Letter grading.

M72A-M72B-M72CW. Sex from Biology to Gend- ered Society. (6-6-6) Communication M72A-M72B-M72CW, Clusters M72A-M72B-M72CW, and Sociology M72A-M72B-M72CW Course M72A is enforced requisite to M72B, which is enforced requisite to M72CW. Limited to first-year freshmen. Letter grading. M72A-M72B-M72CW. Lecture, three hours; discussion, two hours. Examination of many ways in which sex and sexual identity shape and are shaped by biological, data social, and cultural phenomena. From an evolutionary perspec- tive, topics covered may include language, social behaviors, and fundamental questions about the nature of human sex and gender. Satisfies Writing II requirement.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division course in gender studies to present in-depth research topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. Letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. De- signed as adjunct to lower-division lecture course. In- dividual study with professor to explore in depth topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

99. Student Research Program. (1 to 2 Tutorial (su- pervised research or other scholarly work), three hours per week per unit. Entry-level research for lower- division students under faculty mentorship. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

101. Genetic Concepts for Human Sciences. (5) Lecture, three hours; discussion, one hour. Not open for credit to students with credit for Life Sciences 4. Focused treatment of selected complex genetic con- cepts from molecular biology, population and quanti- tative genetics, and evolutionary biology, with em- phasis on gene-environment interaction at various levels and culminating in exploration of notion of co- evolution of genetic and cultural science concepts presented through real-world issues and re- search problems. Current research on cancer, immune system and development, and how this research is pertinent and carried out in the classroom. Letter grading.

102. Societal and Medical Issues in Human Genet- ics. (5) Lecture, three hours; discussion, two hours. Sequence of entire human genome is now known. Consideration of how this knowledge impacts con- cepts of ourselves as individuals and of our place in biological universe, concepts of race/ethnicity and gender, ability of DNA-based forensics to identify spe- cific individuals, ownership and commodification of genes, issues of privacy and confidentiality, issues of genetic discrimination, issues of predictive genetic testing. Discussion of human cloning for reproductive and therapeutic purposes. Survey of the ethical, legal, and sociological implications of biotechnology and of ethical, legal, and political implications as well as biological under- dopings. P/NP or letter grading. M71A-M71B-M71CW. Biotechnology and Society.

105A. Ways of Knowing in Life and Human Scienc- es. (4) Lecture, three hours; discussion, one hour. En- forced requisite: course 5 or M71A or M72A. Course 105A is not requisite to 105B. Introduction to study of various ways of knowing what we know. In life and human sci- ences, evidence and methods and procedures are used to study, measure, and experiment. Exploration of how they are manifested in technology that cut across disciplines to help students evaluate explanatory models, standards of proof, and qualitative versus quantitative studies. Explorations may include DNA sequencing, tissue cul- tures, bioinformatics, statistics, photography and cinema, charts, trees, and databases. DNA se- quencing is used to study gene functions, evolutionary patterns, and disease and plays role in legal context to reconstruct aspects of human history or to trace iden- tities of unknown individuals, e.g., in administrative, commercial, and legal contexts. Pho- tography is used in sciences and medicine (e.g., X-ray photography), as well as in art and forensics. Letter grading.

120. Problems of Identity at Biology/Society Inter- face. (4) Lecture, three hours; discussion, one hour. Requisites: course 101 or Anthropology 1, or Life Sci-ences 4 and 23L, or 7C (each may be taken concur- rently). Course 105A is not requisite to 105B. Explora- tion of problems of human identity that are inherently biological and social. Topics vary and may include race, obesity and nutrition, autism, deafness or dis- ability, gender, intelligence, and how these concepts are a set of intertwined problems so complex, so difficult to define, and so wrapped up in conceptions of what it is to be human, that it has spawned research from var- iety of perspectives in biological and human sci- ences. Students critically engage various intellectual perspectives—some competing, some complemen- tary—that intersect on one particular topic. Examina- tion of how researchers from social/historical and bio- logical sciences construct topic as intellectual problem, methods they bring to bear on it, and find- ings they have produced. Letter grading.

108. Human Biology, Genetics, and Society. (3) Lecture, two hours; laboratory, one hour. Limited to se- nior Human Biology and Society majors. Lectures, readings, discussions, and development of collabora- tive culminating project. Group-based research proj- ects may include team of students working on a contempo- rary at intersections of biology, human biology, genetics, and society. Reading of large amounts of material to make sense of both scientific concepts and social and polit- ical issues, with original research project and presen- tation required. Letter grading.

M110D. Posthumans. (4) (Same as African American Studies CM110D) Seminar, three hours. Denatural- ization of concept of human and with it unique Western philosophical commitments that sustain imagined boundaries between human and non-human, modern and pre-modern, male and female, able and dis- abled, chosen and condemned, indigenous and Euro- pean, African and whiteness, religious and secular. Ex- ploration of formation of human through long course of Euro-American intellectual history and its im- plications for posthuman and contemporary biological science. Study is in- formed by range of theoretical work that covers meaning of modernity, liberalization, inter-species rela- tionships, critical race theory, conceptual problems in evolutionary biology, and public health. P/NP or letter grading.

M113. Ethical, Legal, and Societal Topics in Genetic Counseling. (2) (Same as Human Genetics CM113.) Lecture, two hours. Discussion of social, cultural, eth- ical, and legal issues in genetics and genetic coun- seling. Letter grading.

120. Genetics and Human History. (4) Lecture, three hours. Requisite: course 101 or Life Sciences 107. Ad- vancements in genomic research have rapidly trans- formed traditional archaeological and historical investiga- tions of human past. Drawing from recent re- search, focus on how genomic analysis has shed new light on old debates such as migration of Homo so- lienius out of Africa, human ancestry with Nean- dertals, first migration to North America, ethnic ex- pansion throughout Europe, and genetic legacy of historical figures such as Thomas Jefferson and Genghis Khan. Discussion of practical and theoretical issues surrounding genetic research on history of hu- mans, including challenges of using ancient and modern DNA, population genetic theory, and ethical implications of genetic research for understanding ethnicity. Letter grading.

121. Race, Science, and Citizenship. (4) Seminar, three hours. Early development of scientific method and systematic exclusion of those in subordinate so- cial groups from scientific practice. Interrogation of bi- naries that prop up scientific knowledge construction, and consideration of how norms and values em- bedded in Western science compare with indigenous or local knowledge systems. How medical research is
motivated by competing assumptions of racial hierarchy and equality. Examination of governments’ use of science to classify racially inferior and contaminated foreigners as threats to sociocultural order. Exploration of how people use knowledge about their embodied experiences to demand rights and accept responsibility for their own health and vitality, either in opposition to or alliance with scientific experts. How controversies are solved in science and technology bring to light some central concerns of social and political theory. Letter grading.

125. Critical Study of Health, Sickness, and Healing in Global Perspective. (5) Lecture, three hours; discussion, one hour. Introduc- tion to sociocultural, historical, and global study of health and sickness. Use of case studies of globally important health conditions, chronic diseases (e.g., Ebola, HIV/AIDS) to analyze factors, including key di- mensions of diversity (class, gender, urban/rural de- velopment) that influence how populations vary in their experience, understanding, and coping with sickness. Special focus on relationships between Western medicine and traditional and alternative ap- proaches to healing. Letter grading.

M126. Genes, Disease, and Culture, (4) (Same as Anthropology 126.) Lecture, three hours; discussion, one hour. Examination of genealogy, one hour. Examination of genetics, disease, and culture. Introduction to basic con- cepts in human genetics, expanding upon evolu- tionary genomics learned in Anthropology 7A, 7B, and survey of both inherited and infectious disease on global level. Wide range of topics include gene-culture co-evolution, niche construction theory, cultural per- ceptions and attitudes toward selection, biological and environmental determinism, and evolutionary origins of disease. Course is broken down into genes and genomes, Mendelian disease, complex disease, and in- fectious disease. Discussion of selected readings that integrate cultural perceptions with biological/genetic phenomena. P/NP or letter grading.


M132. Food Cultures and Food Politics. (5) (Same as English 118F and Food Studies M132.) Lecture, four hours; discussion, one hour (when scheduled). Requi- site: English Composition 3. Introduction to interdisci- plinary field of food studies, with focus on how litera- ture, art, science, politics, and visual culture address political dimensions of food and agriculture in specific contexts. P/NP or letter grading.

M133. Environmental Sociology. (4) (Same as Environ- mental Science and Policy 130.) Lecture, three hours; discussion, one hour. Relationship between soci- ety and environment. Analysis in detail of interrela- tions between social factors (such as class, race, gender, wealth, and development) and environmental changes such as pollution, waste disposal, sustainability, and global warming. P/NP or letter grading.

134. Food and Health in Global Perspective. (4) Lec- ture, three hours. Study problematizes and adds depth to common-sense understandings of healthy and unhealthy consumption by examination of rela- tionship between food and health, from critical and holistic perspective, that accounts for interplay of bi- ology and culture within broader historical, sociocul- tural, and global contexts. Topics include what is meant by health, especially in terms of diet; relationship be- tween food practices and evolutionary biology, as well as particular environments of societies, cultural sys- tems, and their distinct health practices. How major global major food have come to their dominance and consequences for health; and influences of food pro- duction, distribution, and preparation on health. Letter grading.

M136. Eating Science: Science and Politics of Food from Individual to Planetary Health. (4) (Same as Food Studies M136 and Sociology M136.) Lecture, three hours; discussion, one hour. Questions of food and health are both individual and social. Students gain tools for understanding relationships between in- dividual eaters, medicine, and social organization of work, includingappraising foods, tracking, and collections of data on food consumption and socio-ecological systems. P/NP or letter grading.

141. Nature versus Nurture: Genes and Environment. (4) Seminar, three hours. Comprehensive and practical examination of emerging science of gene-en- vironment interaction. Discussion of primary compo- nents of field, including role of metabolic pathways in modern science. Importance and influence of environmental influences in human disease. Exploration of selected hot topics in field such as importance of epigenetics and of microbiome. Course is highly useful for further study in medical field or public health. Letter grading.

M142. Primate Genomics, Ecology, and Conserva- tion. (4) (Same as Anthropology 128S.) Seminar, three hours. Focus on genetic research on wild pri- mates at different geographic scales, using readings from primary literature on primate genetics, ecology, and behavior. Study of paternity and kinship, intrapop- ulation genetic variability, genetic linkage, genomics, phylogenetics/phylogenomics and compar- ative genomics. Utility and appropriateness of var- ious markers considered for different research ques- tions, e.g., mitochondrial DNA, nuclear genes, Y-chromosome, as well as GWAS and ge- nomic/historical documentation methods, and epi- genetic markers. Discussion of methods in fieldwork and lab work, including sampling techniques, collec- tion techniques, wet lab techniques, software analysis packages, and statistical analyses. Introductory-level understanding of genetics expected; study further illu- minates areas around genetics relevant to case studies analyzed. Letter grading.

M143. Amazon in Anthropocene. (4) (Same as Anthro- pology 136.) Seminar, three hours. Exploration of major issues facing Amazon region today. Analysis of environmental degradation caused by human activities, and exploration of major environmental problems and potential solutions. Topics include oil exploration, hydroelectric dams and clean energy, deforestation arc, and international land grabs for soy plantations. Highlights value of different kinds of knowledge and expertise for interdisciplinary solutions for current crises in Amazon. Letter grading.

M144. Stress and Social Inequality. (4) (Same as Sociology 144.) Lecture, three hours; discussion, one hour. Integrative view of health dispar- ities, one of most pressing problems of society, through investigation of social origins of stress, socioeconomic status (SES) on health and disease, using specific lens of stress biology. Topics include introduction to funda- mentals of physiology of stress, integration of litera- ture on poverty and SES, biological and psychological consequences of poverty, and introduction of con- cepts of life course by following stress biology through childhood development and into adulthood. Letter grading.

146. Evolution in Anthropocene. (4) Lecture, three hours; discussion, one hour. Recommended requi- sites: Life Sciences 1A, 7B, 7C. Study of evolution across world and tree of life that is being altered at in- political authority, and how political authority has been employed to both promote and restrict genetics. Con- sideration of several historical episodes such as rise to power in Soviet Union of T. D. Lysenko, peasant agron- omist who rejected Mendelism in favor of quasi-La- marckian approach to genetics; participation of genet- icists in creation of racial state in Nazi Germany; and debates over compulsory sterilization of mental defec- tives in Canada, U.S., and Germany from 1920s to 1940s. Contemporary cases such as controversies over genetically modified foods and regulation and governance of regenerative technologies, and rise of disease advocacy groups. Letter grading.

160. Politics of Heredity. (4) Seminar, three hours. Ex- ploration of intersection of politics and genetics in lib- eral democracies and totalitarian regimes. How ge- netics has been used to consolidate and undermine political authority, and how political authority has been employed to both promote and restrict genetics. Con- sideration of several historical episodes such as rise to power in Soviet Union of T. D. Lysenko, peasant agron- omist who rejected Mendelism in favor of quasi-La- marckian approach to genetics; participation of genet- icists in creation of racial state in Nazi Germany; and debates over compulsory sterilization of mental defec- tives in Canada, U.S., and Germany from 1920s to 1940s. Contemporary cases such as controversies over genetically modified foods and regulation and governance of regenerative technologies, and rise of disease advocacy groups. Letter grading.

161. Controversy and Behavior Genetics. (4) Semi- nar, three hours. Behavior genetics is controversial and seeks genetic links to intelligence, personality, mental illness, and criminality, among many other traits. It explores differences between individuals, men and women, or racial groups, and what social policies might do about those differences. Causes and effects of controversy in behavior genetics using critical sociology and history. Consideration of scien- tific disputes between behavior geneticists and their critics, and critical sociology of behavior genetics. Consideration of behavior genetics as group of scientists, and public reception of behavior genetics and disputes about its social and policy implications. Letter grading.

162. Biotechnologies, Law, and Body. (4) Seminar, three hours. Notions of bodily integrity, privacy, right to life, and to choose to die have created perception that our bodies are protected by law, that somehow we possess sovereignty over our own bodies, and that en- compassing not only our physical being but intangible information contained within our materialized forms. Questioning whether these rights to our own bodies exist and are secured by common and Constitutional law in light of recent developments in biotechnology.
189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through suplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.
196. Research Apprenticeship in Society and Genetics. (2) Tutorial, six hours. Limited to juniors/seniors. Entry-level research opportunities in society and genetics under guidance of faculty mentor. May be repeated for maximum of 4 units. Individual contract required. P/NP or letter grading.

197. Individual Studies in Society and Genetics. (2 to 4) Tutorial, to be arranged. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned readings and tangible evidence of mastery of subject matter (paper or other product) required. May be repeated for credit. Individual contract required. Letter grading.

198. Directed Research in Society and Genetics. (2 to 4) Tutorial, six to 12 hours. Preparation: submission of written proposal outlining study or research to be undertaken due to undergraduate advisor for department approval. Studies to involve laboratory research, not primarily literature surveys or library research. Proposal to be developed in consultation with instructor. Limited to juniors/seniors. Department majors may enroll with sponsorship from department faculty members or preapproved outside faculty members. Other juniors/seniors may enroll only with department faculty sponsors. Supervised individual research under guidance of faculty mentor. At end of term culminating paper describing progress of project and signed by student and instructor must be presented to department. May be repeated for credit. Individual contract required. Letter grading.

Graduate Course

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

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Overview
Sociology is the study of the organization, dynamics, and consequences of social life. The scope of the discipline is as broad and diverse as social life itself. Sociologists study social interaction and relationships, organizations and institutions, communities and whole societies. The methods of sociological investigation are also varied: sociologists immerse themselves in the daily life of groups, interview group participants, examine recorded interaction, interpret historical documents, engage in quantitative analysis of data, and conduct large surveys. The methods and concepts of sociology yield powerful insights into the social processes shaping lives, problems, and possibilities in contemporary society. The ability to identify and understand these processes—a capacity that C.W. Mills called the “sociological imagination”—is valuable preparation for personal and professional participation in a changing and complex world.

The Department of Sociology faculty includes internationally renowned scholars who address topics ranging in scope from the organization of face-to-face interaction to the consequences of globalization. The department boasts outstanding teachers—six of whom have won Distinguished Teaching Awards—and excellently trained teaching assistants, many of whom have also won awards. The select honors program has a record for training students in the fundamentals of research and generating honors theses of substantial accomplishment.

Career Prospects
In addition to contributing to a liberal arts education, the Sociology major prepares individuals for a broad range of career options and graduate and professional studies. The analytic perspectives and skills gained in the major are a foundation for careers in business, data science, education, law, public health, and social welfare. The major also supplies a foundation for students intending to pursue graduate work in sociology and related fields. Employment opportunities available to the graduate with a Bachelor of Arts (BA) degree in Sociology also include work in community service organizations and health agencies, government service, and human resources.

The Doctor of Philosophy (PhD) in Sociology usually leads to a career in research and/or teaching. Although most sociologists are employed by universities, there are increasing ca-
The Major

Preparation for the Major

- Critical evaluation of social and political arguments using empirical data
- Effective and convincing formulation of written and oral arguments that integrate sociological evidence
- Demonstrated understanding of the difference between an individual-level and collective-level explanation of behavior
- Demonstrated understanding of the major sociological methods, including interviewing, ethnography, conversation analysis, content analysis, survey design, and statistical analysis, the types of questions they can be used to answer, and their limitations
- Demonstrated familiarity with several major classical contemporary sociological theoretical perspectives and how they can be used to analyze contemporary or historical events or phenomena
- Understanding of some ways in which biographies are shaped by institutions, patterns of social inequality, or cultural practice

Entry to the Major

Pre-major

Only students with fewer than 90 units completed (excluding Advanced Placement units/credit) may declare the Sociology pre-major once they complete either Sociology 1 or 20 with a grade of C or better.

First-Year Students

Students must petition to declare the Sociology major. If Sociology 101 or 102 has already been completed, a grade of C or better is required. Grades in any other completed sociology courses for the major must be C- or better.

Transfer Students

Transfer applicants to the Sociology pre-major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one introduction to sociology course and one statistics course.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major

Required: Sociology 1, 20, and one course from Political Science 6, Statistics 10, or 13.

The Major

Required: Eleven upper-division courses, including (1) two theory courses—Sociology 101, 102; (2) one methods course from Sociology 106A, 106B, 110, 111, 112, 113, CM124A, 191H, or Statistics 112; (3) one course from each of the following core areas: (a) interactions—Sociology 111, CM124A, CM125, 126, 130, 132, 133, 134, 140, or 152, (b) institutions and social processes—Sociology 116, 121, M139, 140, 143, 151, 158, 172, 173, M174, M175, M176, or 181B, (c) power and inequality—Sociology M115, 122, 123, M139, 147A, M153, 156, 157, M161, M162, M164, M165, M181A, 182, 183, 185, or 186; and (4) any five upper-division sociology elective courses.

Honors Program

The honors program in sociology provides opportunity for outstanding students to undertake an independent year-long research project under the guidance of a faculty member. Students who successfully complete the honors program graduate with departmental honors.

After acceptance into the honors program, students are required to take courses 191H, 198A, 198B, and 198C (honors thesis seminars) which may be applied as electives toward the major requirements.

Computing Specialization

Majors in Sociology may select a specialization in Computing by (1) satisfying all the requirements for a bachelor’s degree in the major, (2) completing Program in Computing 10A, 10B, 10C, and (3) completing Sociology 111, 113. Each course must be taken for a letter grade. Students graduate with a bachelor’s degree in sociology and a specialization in Computing.

Policies

Preparation for the Major

A minimum grade of C is required in each preparation for the major course. Students with a grade-point average less than 2.0 in the preparation coursework are not eligible for admission to the major. Students who repeat any preparation course more than once are automatically denied admission to the major.

The Major

Students should complete course 101 and the core courses before taking other upper-division courses.

Each course for the major must be taken for a letter grade. To graduate, students must have at least a 2.0 grade-point average in their upper-division major courses, with grades of C or better in Sociology 101 and 102.

Only 8 units of Sociology 199 are allowed. The two theory courses, three core area courses, one methods course, and one sociology elective (seven courses total) must be taken while in residence in the College of Letters and Science at UCLA.

Honors Program

As preparation for the honors program, students must complete all preparation for the major courses.

Students must have a 3.5 overall grade-point average, have completed the sociology preparation requirements and, in most cases, have completed the required theory course. Applications are available from the undergraduate advisor’s office, 254E Haines Hall.

Graduate Major

Sociology MA, CPhil, PhD

Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Sociology

Lower-Division Courses

1. Introductory Sociology. (5) Lecture, four hours; discussion, one hour. Survey of characteristics of social life, processes of social interaction, and tools of sociological investigation. P/NP or letter grading.

2. Social Organization of Black Communities. (5) Same as African American Studies 195. (Same as Africana Studies 158.) Lecture, four hours; discussion, one hour; field trips. Analysis and interpretation of social organization of black communities, with focus on origins and development of black communities, competing theories and research findings, defining characteristics and contemporary issues. Letter grading.

3. Social Thought and Origins of Sociology. (5) Lecture, three hours; discussion, two hours. Introduction to history of social thought, with special emphasis on theoretical precursors to development of discipline of sociology. Exposition and analysis of selected social theorists and concepts, especially from the 17th to 19th centuries. Letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

20. Introduction to Sociological Research Methods. (5) Lecture, three hours; discussion, one hour. Introduction to methods used in contemporary sociological research, with focus on issues of research design, data collection, and analysis of data. Fieldwork may be required. Letter grading.

40. American Racism: Psychosocial Analysis. (5) Lecture, four hours; discussion, one hour. Examination of long-standing history of American racism, beginning with institution of slavery, Jim Crow legislation, separate but equal doctrine, Brown versus Board of Education, Civil Rights legislation of 1960s, and Obama presidency. Focus on persistence over time of racist beliefs and mechanisms through which racism becomes passed on from one generation to the next. Racism toward African Americans and harms it has inflicted on African American community, as well as on nation as whole. Examination of psychology and sociology of racism through video clips, social scientific texts, essays by prominent American humanists, and American literature that deals centrally with racism. P/NP or letter grading.

51. Sociology of Migration. (5) Lecture, three hours; discussion, one hour. Introduction to fundamental theories, themes, and research methods used in sociological research through comparative study of international migration. Examination of theoretical debates and empirical analysis of causes and consequences of transnational migration in countries of origin and destination, with focus on issues of race, ethnicity, social networks, development, citizenship, and state in comparative context. Letter grading.
M72A-M72B-M72CW. Sex from Biology to Gendered Society. (6–6–6)

Freshmen. Letter grading. M72A-M72B-Course 72 CW. Course M72A is required for M72B, which is required for M72CW. Limited to first-year freshmen. Letter grading.

102. Contemporary Sociological Theory. (5)

Survey of basic concepts and theories in sociology. Lecture, three hours; discussion, one hour. Requisite: course 101. Critical examination of significant theoretical formulations from 1920 to present. P/NP or letter grading.

110. Comparative and Historical Methods. (4)

Lecture, three hours; discussion, one hour. Recommended requisite: course 101. Introduction to range of comparative and historical methods alongside broader questions and issues in this area of sociology. Students learn about using theories to analyze real-world cases; making comparisons between societies and other social units; developing sociological explanations of historical events; and generalizing about social patterns and changes over time. P/NP or letter grading.

111. Social Networks. (4)

Lecture, three hours; laboratory, one hour. Analysis of how social networks create the infrastructure for social and their unexpected effects. Topics include job search, firm efficiency, and social movements. Visualization programs, computer simulations, and research project. P/NP or letter grading.

112. Introduction to Mathematical Sociology. (4)

Lecture, three hours; laboratory, one hour. Requisites: Mathematics 2, 3A (course whose content includes interdictions to probability theory, matrix algebra, and differential and integral calculus). Statistics 10. Mathematical treatment of several sociological phenomena, such as occupational mobility, population growth, organizational structure, and friendship patterns, each covered in some detail, including initial development and subsequent evaluation and modification (emphasizing both deductive and computational aspects of mathematics). Letter grading.


Lecture, three hours; laboratory, one hour. Requisite: Statistics 10. Continuation of Statistics 10, covering more advanced statistical techniques such as maximum likelihood estimation of factor analysis. Content varies. Students learn how to use computer and write papers analyzing prepared data sets. P/NP or letter grading.

114. Social Data Science. (4)

Lecture, three hours; discussion, one hour. Data analysis, and way social theory and data are linked. Covers data and computing environment, regression analysis, causal analysis, and machine learning. Offers tools for conducting quantitative analyses of social phenomenon, including emerging computational methods. Integrates substance and method. Draws on literature in social inequality to equally demonstrate applications of studied methods. P/NP or letter grading.

115. Environmental Sociology. (4)

Same as Environment M133 and Society and Genetics M133.) Lecture, three hours; discussion, one hour. Relationship between society and environment. Analysis in detail of interrelations between social factors (such as class, race, gender, and religion) and environmental factors (such as pollution, waste disposal, sustainability, and global warming). P/NP or letter grading.

116. Social Descent. (4)

Lecture, three hours; discussion, one hour. Studies of past, present, and future trends in population growth. Sociological theories of causes and consequences of population growth and redistribution. Emphasis will be on fertility, mortality, and migration. P/NP or letter grading.

117. Family Demography. (4)

Lecture, three hours; discussion, one hour. Examination of demographic behaviors, such as marriage, divorce, and childbearing, associated with family and household organization. Sociological approach to understanding causes and consequences of trends and differentials in family formation and dissolution. P/NP or letter grading.

118. Simulating Society: Exploring Artificial Communities. (4)

Same as Communications M125.) Lecture, four hours; discussion, one hour. Designed for juniors/seniors. Practices of communication and social interaction in number of multimedia sites and storytelling. Setting varies but may include emergency services, police and courts, medicine, news interviews, and political oratory. Concurrently scheduled with course CM125A. P/NP or letter grading.

119. Primate Societies. (4)

Seminar, three hours; discussion, one hour. Requisite: course 1. Designed for juniors/seniors. Topics on diverse behaviors and cultural forms of primates, especially baboons, chimpanzees, and gorillas. Examination of primate socioculture, sexual competition, demography and kinship, politics, communication, and interactions within and between primate species for our lives as human primates. P/NP or letter grading.

120. Disability Rights Law. (4)

Same as Disability Studies M149.) Lecture, four hours. Examination of disability-related issues impacting people of all ages across wide spectrums of settings in both public and private sectors—from preschool to higher education, from military to workplace, and from intensely urban environments to online and virtual worlds. Topics range from persistent and recurring disputes to novel controversies fueled by new technologies and changing times. P/NP or letter grading.

121. Sociology of Religion. (4)

Lecture, three hours; discussion, one hour. Examination of classic and contemporary work in sociology of religion. Analysis of definition of religion, role of religion in modern life, and role of categories like Islam in contemporary U.S. politics. Focus on complicated questions of what it means to be religious: does that mean they are moral, believe in God, or are part of community of believers? Students gain better sense of how to think and talk about religion. P/NP or letter grading.

122. Sociology of Violence. (4)

Lecture, three hours; discussion, one hour. Exploration of macro-, meso-, and micro-level theories of violence, why states organize violence, why civilizations participate in violence, and physical, structural, and cultural definitions and forms of violence, also how violence is transformed in everyday, organizational, and extraordinary contexts. P/NP or letter grading.
129. Sociology of Time. (4) Lecture, three hours; discussion, one hour. Conceptualizations of time seen from scientific, philosophical, historical, and sociological perspectives; linear time in primordial, ancient, and medieval societies; ritual, the sacred, and experience of the eternal; structuring of urban, modern, and postmodern societies by clock, calendar, and schedule; future value orientation and notion of progress; see, labor, and social domination. P/NP or letter grading.

130. Self and Society. (4) Lecture, three hours; discussion, one hour. Examination of social processes shaping self-definition, and enactment of self and personal identity. P/NP or letter grading.

131. Careers in Sociology. (4) Lecture, three hours. Limited to juniors/seniors. Examination of possible career paths for Sociology majors, including such fields as business, nonprofit sector, government, healthcare, entertainment, and other areas. Development of career-relevant materials and skills. Letter grading.

132. Social Psychology: Sociological Approaches. (4) Lecture, three hours; discussion, one hour. Survey of contributions of sociologists to theory and research in social psychology, including theories of social control; conformity and deviation; reference groups; and interaction processes. P/NP or letter grading.


134. Culture and Personality. (4) Lecture, three hours; discussion, one hour. Requsite: course 1. Designed for juniors/seniors. Theories of relation of variations in personality, culture, and individualistic life, in primitive, modern, and postmodern societies, and influence of social role on behavior. P/NP or letter grading.

135. Sociology of Body. (4) Lecture, three hours; discussion, one hour. Examination of body as social construct in particular social and historical contexts. Students gain understanding of how bodies become gendered, raced, classed, and sexualized in ways that create and reinforce social institutions and relations of power. Analysis of reciprocal processes of structuration: how body is shaped by social expectations and symbolic exchange, how meanings are attached to bodies and different body parts, and how body is used in shape social interactions. Critical evaluation of embodiment experience, and contribution of sociological theories and data to understanding P/NP or letter grading.

136. Death, Dying, and Afterlife. (4) Formerly numbered M138.) Lecture, three hours; discussion, one hour. Social analysis of social inequities in death, understanding of what constitutes death, how to make sense of bad deaths, how to dispose of death, and what constitutes appropriate grieving. Death remains at foundation of discipline of sociology. Suicide does not occur randomly but is stratified according to social and structural factors. Emotional orientation, and class. Review of strength of sociological argument and evaluation of explanatory potential of different theories to death. Examination of historic and contemporary studies to examine how research and conceptualizations of death and dying have changed, and social responses to these phenomena. P/NP or letter grading.

137. Asian Comparative Border-Crossing, Diasporic Formation, and Social Transformation. (4) (Same as Asian American Studies M179.) Lecture, three hours; discussion, one hour. Exploration of critical orientations that are driven by globalization and international migration, through social science lens of migration studies and diaspora studies. Examination of how movements of people, ideas, capital, and cultural trends and patterns of diasporic formation, integration, and social transformation at individual, group, and societal levels in non-Western contexts. Students engage in intellectually stimulating debates on immigration and immigrant integration in Asian world; and on anxieties, tensions, conflicts, and accommodation in age of globalization. Students also discuss challenges, possibilities, and implications of building cohesive Asian community. P/NP or letter grading.

140. Negotiating Medical Care: Physician-Patient Conversations. (4) Lecture, three hours; discussion, one hour. Overview of how physician-patient interaction influences kinds of treatment patients receive. Focus on routine primary care medical visits and study of how some of our most significant health-care epiphenomena are affected by communication that takes place during primary care medical visits. Topics include communication between clinicians and patients who has changed over years, normative structure of medical visit, and how communication adds to series of public health problems currently faced. Students learn how to analyze actual interactions between physicians and patients with hands-on exercises to give them tools to examine these conversations. P/NP or letter grading.

141A. Migration and Labor in Mexico-U.S. Context. (5) Seminar, 20 hours. Mexico-U.S. migration is largest and oldest continuous international population flow of contemporary world, temporarily prompted by swift economic transformations, rural and urban Mexican migrants from every corner of Mexico have joined this migratory flow, settling well beyond southwestern region and organizing new communities in the U.S. Migration is binding U.S. and Mexico stronger than ever, putting this complex and multilayered phenomena at top of bilateral agenda. Examination of sociological dynamics of international migration and labor as they apply to Mexico-U.S. context, including demographic, political, and economic dynamics of migration, economic and social infrastructures that support cross-border mobility, and connections of migration with bi-national, national, regional, and local labor markets. Comparative insights to contrast this flow with other contemporary population streams. Offered in summer only. Letter grading.

141B. Migration and Labor in Mexico-U.S. Context: Research Seminar. (5) Seminar, 10 hours; fieldwork, 10 hours. Development of qualitative micro-study and research paper on migration and labor in Mexico-U.S. context. Research paper. Secondary and primary research conducted to study how students become familiar with commonly employed qualitative methods of research. Designed to help students understand basic methods of methodological reasoning, how to formulate research questions, and how to frame and investigate one particular issue related to migration and labor. How to make ethical decisions about conducting research. Development of student abilities in working with a secondary and primary research culminating in final research paper to be presented to faculty members and peers. Offered in summer only. Letter grading.


M144. Stress and Society: Biology and Inequality. (4) Lecture, three hours; discussion, one hour. Integrative view of health disparities, one of most pressing problems of society, through investigation of effects of socioecological stressors (SES) on being specific lens of stress biology. Topics include introduction to fundamentals of physiology of stress, integration of literature on poverty and SES with studies on physiologically consequences of poverty. Study of concepts of life course by following stress biology through childhood development and into adulthood. Letter grading.

145. Sociology of Deviant Behavior. (4) Lecture, three hours; discussion, one hour. Examination of leading sociological approaches to study of deviation and general survey of major types of deviation in American society. P/NP or letter grading.

147A. Sociology of Crime. (4) Lecture, three hours; discussion, one hour. Survey of theoretical theories of social origins, organization, and meanings of crime and criminal behaviors. P/NP or letter grading.

147B. Sociology of Criminal Justice. (4) Lecture, three hours. Discussion, one hour. Examination of structures and routine decision-making processes of key criminal justice institutions, including police, courts, probation and parole, jails and prisons. P/NP or letter grading.

148. Sociology of Mental Illness. (4) (Same as Disability Studies M148.) Lecture, three hours; discussion, one hour. Analysis of major sociological and social psychological models of madness. Study of social processes involved in production, recognition, labeling and treatment of mental illness. P/NP or letter grading.

149. Youth, Trouble, and Juvenile Justice. (4) Lecture, three hours; discussion, one hour. Examination of processes through which youth become involved in juvenile justice system. Analysis of this system as people-processing and people-changing institution as context for considering critical issues in juvenile justice. P/NP or letter grading.

150. Sociology of Aging. (4) (Same as Gerontology M150.) Lecture, three hours; discussion, one hour. Study of sociological processes shaping definition, meaning, and role of the elderly in contemporary society. Topics include race, class, and gender in aging over life course; interpersonal relations and social worlds of aged; caregiving relations and institutions; social inequalities concerned with aging. P/NP or letter grading.

151. Comparative Immigration. (4) Lecture, three hours; discussion, one hour. Survey of immigration experience of ethno-racial groups that migrated voluntarily to this country, with emphasis on immediate postmigration settlement. P/NP or letter grading.

152. Comparative Acculturation and Assimilation. (4) Lecture, three hours; discussion, one hour. Requisite: course 151. Comparison of acculturation and assimilation of Europeans, Africans, Mexicans, and Asians in the U.S., with emphasis on long-term cultural consequences of immigration. P/NP or letter grading.

153. Chinese Immigration. (4) (Same as Asian American Studies M130C.) Lecture, three hours; discussion, one hour. Survey of sociological studies of Chinese immigration, with focus on international context, organization, and institutions of Chinese America and its interactions with social environment. P/NP or letter grading.

154. Race and Ethnicity in Latin America. (4) Lecture, three hours; discussion, one hour. Role of race and ethnicity in political, economic, and social lives of Latin American nations. P/NP or letter grading.
M155. Latinos in U.S. (4) (Same as Chicana/o and Central American Studies M155A.) Lecture, three hours; discussion, one hour. Designed for juniors/seniors, faculty, and social condition of Latinos in Los Angeles as well as nationally, with particular emphasis on their location in larger social structure and on comparisons with other minority groups. Topics include migration, family, education, and work issues. P/NP or letter grading.

156. Race and Ethnicity in American Life. (4) Lecture, three hours; discussion, one hour. Role of race and ethnicity in the U.S., including interplay between racial and ethnic structures and meanings. Special attention to comparison of African American and European American experiences and to transformation of Asian American and Latino communities and the nation generally, wrought by renewal of mass migration in second half of the 20th century. P/NP or letter grading.

157. Social Stratification. (4) Lecture, three hours; discussion, one hour. Analysis of American social structure in terms of evaluative differentiation. Topics include criteria for differentiation, bases for evaluation, types of stratification, composition of strata and status systems, mobility, consequences of stratification, and problems of methodology. P/NP or letter grading.

158. Urban Sociology. (4) Lecture, three hours; discussion, one hour. Description and analysis of urbanization and urbanism in the U.S. and world. P/NP or letter grading.


M162. Sociology of Gender. (5) (Same as Gender Studies M162.) Lecture, three hours; discussion, one hour. Enforced requisite: course 1 or Gender Studies 10. Examination of processes by which gender is socially constructed. Topics include distinction between biological sex and sociological gender, causes and consequences of gender inequality, and recent changes in gender relations in modern industrial societies. P/NP or letter grading.

M163. Gender and Work. (4) (Same as Gender Studies M163.) Lecture, three hours; discussion, three hours; discussion, one hour. Limited to juniors/seniors. Social and human reproduction is global policy issue. Government efforts to influence reproduction are important feature of modern state; political intervention into private life, intimacy, and sexuality. Exploration of politics of reproduction—intersection between politics and life cycle or between public sphere and private lives—and coverage of broad range of issues addressing prevention and promotion of reproduction from historical-comparative approach. Reading, discussion, and development of culminating project. P/NP or letter grading.

M165. Sociology of Race and Labor. (4) (Same as African American Studies M165 and Labor Studies M165.) Lecture, three hours; discussion, one hour. Limited to juniors/seniors. Exploration of relationship between race, work, and the economy. Analysis of underlying racial divisions in workforce and how they evolved historically. Consideration of circumstances under which workers and unions have employed people of color from jobs and unions, as well as circumstances under which workers and unions have organized people of color into unions in efforts to improve their wages and working conditions. Emphasis on globalization of these dynamics. P/NP or letter grading.

168. Organizations and Society. (4) Lecture, three hours; discussion, one hour. Sociological analysis of organizations and their social environment. Introduction to basic theories, concepts, methods, and trends in search of behavior of organizations in society. P/NP or letter grading.

169. Law and Society. (4) Lecture, three hours; discussion, one hour. Specific topics may include law in preindustrial and industrialized societies, legalizations of contemporary social relations, participants’ experiences of legal processes, perceptions of justice, social movements toward equal justice, roles of lawyers and legal institutions, and influence of court decisions. P/NP or letter grading.

170. Medical Sociology. (4) Lecture, three hours; discussion, one hour. Requisite: course 1. Provides majors in Sociology and other social sciences, as well as students preparing for health sciences careers, with understanding of health-seeking behavior and interpersonal and organizational relations that are involved in receipt and delivery of health services. P/NP or letter grading.

171. Occupations and Professions. (4) Lecture, three hours; discussion, one hour. Description and analysis of representative occupations and professions, with emphasis on contemporary U.S. P/NP or letter grading.

172. Entrepreneurship. (4) Lecture, three hours; discussion, one hour. Description and analysis of entrepreneurship, with special reference to historical origins, identification of entrepreneurs, and ethnic minority participation, legal and illegal forms, public and private auspices. P/NP or letter grading.

173. Economy and Society. (4) Lecture, three hours; discussion, one hour. Sociology of economic life, with emphasis on principal economic institutions of the U.S. P/NP or letter grading.

174. Sociology of Family. (4) (Same as Gender Studies M174.) Lecture, three hours; discussion, one hour. Theory and research dealing with modern family. Its structure, functions, including historical changes, variant family patterns, family as institution, and influence of contemporary society on family. P/NP or letter grading.

175. Sociology of Education. (5) (Same as Education M108.) Lecture, four hours; discussion, one hour. Study of how U.S. educational system both promotes socioeconomic opportunities and maintains socioeconomic inequalities: historical and theoretical perspectives on role of education in U.S. society; trends in educational attainment; ways in which family background, class, race, and gender affect educational achievement and opportunities for development within and outside schools; effects of education on socioeconomic attainment, family, health, attitudes, and social participation; educational policies to improve school quality and address socioeconomic inequalities. Letter grading.

176. Sociology of Mass Communication. (4) (Same as Communication M147.) Lecture, four hours; discussion, one hour (when scheduled). Studies in relationships between mass communication and social organization. Topics include history and organization of major media institutions, social forces that shape production of mass media news and entertainment, selected audience studies, and effects of media on society. P/NP or letter grading.

177. Sociology of Caribbean. (4) (Same as African American Studies M178.) Lecture, three hours; discussion, one hour. Limited to juniors/seniors. Historical sociology of Caribbean, with emphasis on colonialism and decolonization, development and underdevelopment, race-making institutions and evolution of race relations, nationalism and migration. P/NP or letter grading.

180A-180Z. Special Topics in Sociology. (4) each Lecture, three hours; discussion, one hour. Limited to juniors/seniors. Study of selected topics of sociological interest. Open to non-sociology majors, and instructors. May be repeated for credit and may be applied as elective units toward Sociology major. P/NP or letter grading.

181A. Sociology of Global China. (4) Lecture, three hours; discussion, one hour. Designed for juniors/seniors. Analyses of how domestic developments create impetus for China’s global expansion, and assessments of global China’s interest in and relations with its neighbors. Concrete case studies include Belt and Road Initiative, soft power and cultural diplomacy, internal colonization of Hong Kong and Xinjiang, China in Africa, U.S.-China trade war, and New Cold War. P/NP or letter grading.

181B. Sociology of Contemporary China. (4) Lecture, three hours; discussion, one hour. Designed for juniors/seniors. Survey of changes in Chinese society from beginning of 20th century to present. Topics include social mobility and inequality, family and household, and population. Emphasis on changes post-Reform and opening in present. Focus on interaction of economic and political change plus family organization. Contrasts and similarities between China and West, China’s place in social sciences, and challenges due to social organization that originated from studying Western societies. May be taken independently for credit. P/NP or letter grading.

182. Political Sociology. (4) Lecture, three hours; discussion, one hour. Contributions of sociology to study of politics, including analysis of political aspects of social institutions, social context of action, and social bases of power. P/NP or letter grading.

183. Comparative and Historical Sociology. (4) Lecture, three hours; discussion, one hour. Requisite: consent of instructor. Survey of comparative and historical studies in sociology. Various aspects of development of modern society, including development of nation-state, emergence of capitalism, industrialization, and population growth. Variation in contemporary society, viewed from variety of theoretical perspectives. P/NP or letter grading.

185. American Society. (4) Lecture, three hours; discussion, one hour. Analysis of institutions in the U.S. in historical and international perspective, with emphasis on topics such as industrialization, work, state, politics, community, family, religion, and American culture. Theories of social change, conflict, and order applied to case of the U.S. P/NP or letter grading.

186. Latin American Societies. (4) Lecture, three hours; discussion, one hour. Social structure and social conflict in Latin America, with special attention to racial and class structures and dilemmas of economic and political development. Country and specific focus varies each term. P/NP or letter grading.

188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced requisite: course 188SC. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic. Credit preparation and prearrangement of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SB. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced requisite: course 188SC. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic. Credit preparation and prearrangement of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced requisite: course 188SB. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.
189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study. Enrollment is by special arrangement only; students are required to write contract for their seminar. Letter grading.


191M. Undergraduate Seminar: Social Ecology. (5) Seminar, three hours. Limited to juniors/seniors. Fundamentals of sociological approach to social ecology, also known as human ecology. Study of adaptation of population to its environment. Topics include density, maintenance of personal space, space and territorial effects of environment on humans. Reading, discussion, and development of culminating project. Letter grading.

191N. Undergraduate Seminar: Urban and Suburban Sociology. (5) Seminar, three hours. Limited to juniors/seniors. History and present condition of cities and suburbs in America, with stress on global cities such as New York and Los Angeles, and comparisons to London and Shanghai. Process of suburbanization as it began in early 19th century and still continues. Analysis of city politics, house and architectural styles, crime, urban terror, public housing and ghettos, segregation and integration of neighborhoods, questions of gentrification, immigration, urban culture (especially art, museums, and movie and music industries), and environmentalism. A frequently scheduled course with course C297. Letter grading.

191NY. Undergraduate Seminar: Urban and Suburban Sociology in New York City. (5) Seminar, eight hours. Limited to students in summer UCLA Travel Study Program. Cutting-edge urban issues in city of 9.2 million, rebuiding of Wold Trade Center, Robert Moses (New York's master builder), urban economic development, green New York, transporation systems, urban politics, house and architectural styles, including New York's famous skyscrapers, historic preservation, crime and police departments, ghettos, education, housing, and search for affordable housing. Offered in summer only. Letter grading.

191O. Undergraduate Seminar: Ideas of Love in Historical Perspective. (5) Seminar, three hours. Limited to honors seminar participants. Seminar dedicated to creating and handling cultural institutions. Study of selected topics of sociological interest. Seminar, three hours. Limited to juniors/seniors. Social and human reproduction is global policy issue. Government efforts to influence reproduction are important feature of modern state: political intervention into private life, intimacy, and sexuality. Exploration of politics of reproduction—interaction between politics and life cycle or between public and private lives—and of broad range of issues involved in understanding and changing pattern of reproduction from historical-comparative approach. Reading, discussion, and development of culminating project. Letter grading.


191Q. Undergraduate Seminar: Communication in Medical Care. (5) Seminar, three hours. Limited to juniors/seniors. Sociology dimensions of patient care in primary care context. Use of microsociological methods to examine main facets of American primary care medical visits, including detailed analysis of interactional conduct of those visits and development of interpersonal and analytic skills. Reading, discussion, and development of culminating project. Letter grading.

191R. Undergraduate Seminar: Culture and Society. (5) Seminar, three hours. Limited to juniors/seniors. Introduction to classic theoretical approaches and contemporary developments in study of social worlds and processes shaping definition, enactment, and experience of self. Reading, discussion, and development of culminating project. Letter grading.

191S. Undergraduate Seminar: Sexuality. (5) Seminar, three hours. Limited to juniors/seniors. Sexuality is important site for enactment of gender and gender identity. Sexual preference and sexual behavior can also form basis for social identity, repression, discrimination, and privilege, independent of gender. Social factors such as social class, ethnicity, gender, and networks shape our sexual practices and choice of partners. Reading and writing about original sociological work, textual and anthropological texts and development of culminating project. Letter grading.

191T. Undergraduate Seminar: War and Society. (5) Seminar, three hours. Limited to juniors/seniors. Study of relationship between social relations and American identity of social organization in general, with particular attention to shock-based civic militarism characteristic of the West. Topics include honor, discipline, bureaucracy, conscription, logistics, total war, guerilla war, terrorism, and counterinsurgency. Reading, discussion, and development of culminating project. Letter grading.

191U. Undergraduate Seminar: Community. (5) Seminar, three hours. Limited to juniors/seniors. Study of selected topics of sociological interest. Reading, discussion, and development of culminating project. Consent Schedule of Classes. Seminar, three hours. Limited to juniors and instructors. May be repeated for credit and may be applied as elective units toward Sociology major. Letter grading.

194. Research Group Seminars: Sociology. (2) Seminar, two hours. Designed for undergraduate students who are part of research group. Discussion of research methods and current literature in field. May be repeated for credit. P/NC grading.

M194DC. Quarter in Washington, DC, Research Seminars. (Same as History M194DC, and Political Science M194DC.) Seminar, three hours. Limited to Quarter in Washington students and other students enrolled in UC Washington programs. Seminar, three hours. Undergraduate study for graduate students. May be repeated for credit and may be approved by instructor. Letter grading.

195CE. Community and Corporate Internships in Sociology. (4) Tutorial, to be arranged; fieldwork, eight to 10 hours. Limited to juniors/seniors. Internship in community agency or business to gain electronic internship. Enrollment is by special arrangement only; students are required to write contract for their seminar. Letter grading.

M194DC. Quarter in Washington, DC, Research Seminars. (Same as History M194DC, and Political Science M194DC.) Seminar, three hours. Limited to Quarter in Washington students and other students enrolled in UC Washington programs. Seminar, three hours. Undergraduate study for graduate students. May be repeated for credit and may be approved by instructor. Letter grading.
units may be applied toward major; units applied must be taken for letter grade. Individual contract with supervising faculty member required. P/NP or letter grading.


198A. Design of research project to serve as student’s honors thesis. Research proposal, detailed bibliography, and regular meetings with sponsoring faculty member required. 198B. Requisite: course 198A. Completion of work initiated in course 198A. Development of honors thesis in consultation with instructor. Requisite: course 198B. Completion of honors thesis under direct supervision of honors faculty director.

199. Directed Research in Sociology. (2 to 4) Tutorial, one hour. Requisite: junior/senior Sociology majors. Independent intensive study designed for students with research interest under guidance of faculty mentor. Scheduled meetings to be arranged between faculty mentor and student. Culuminating paper or project required. May be repeated for maximum of 16 units, but only 8 units may be applied toward major. Individual contract required; see undergraduate counselor. P/NP or letter grading.

199A-199B. Directed Research in Language and Social Behavior. (4–4) Tutorial, one hour. Limited to junior/senior Language and Social Behavior minor faculty advisory committee. Scheduled meetings to be arranged between faculty mentor and student. Culuminating paper or project required. Individual contract required; see undergraduate counselor. Letter grading.

Graduate Courses

201A-201B-201C. Proseminars: Sociology. (2–2–2) Seminar; two hours every other week. Required of first-year graduate students. Introduction to range of theoretical and research interests represented by department faculty members. S/U grading.

202A-202B. Theory and Research in Sociology. (4–4) Lecture, two hours; discussion, two hours. Required of first-year graduate sociology students. Examination of interrelations of theory, method, and substance in exemplary sociological works, with analytical and skills-centered orientation. In Progress (202A) and S/U or letter grading.

203. How to Write a Lot. (4) Seminar, three hours. Designed to help graduate students develop regular and productive writing practices. Appropriate for students in their second year or beyond who have one full draft of their MA paper written and want to revise and publish it in a timely manner. Development of regular writing schedules and protecting them from competing demands. Learning of specific genres of writing for academic journals, books, and op-eds. Editing of students’ own work and that of classmates. S/U or letter grading.

204. Topics in Sociological Theorizing. (4) Seminar, four hours. Examination of selected issues and problems in classical or contemporary sociological theory. S/U or letter grading.

205. Family and Social Change. (4) Lecture, three hours. Examination of change in family and household organization, with major focus on relations among economic institutions, family structure, and content of family life. Consideration of concepts, theories, and data about kinship. S/U or letter grading.


210C. Intermediate Statistical Methods III. (4) Lecture, three hours; discussion, one hour. Requisite: course 210B. Statistical methods used in social research, with focus on problems for which classical linear regression model is inappropriate, including categorical data, structural equations, longitudinal data, incomplete and erroneous data, and complex samples. S/U or letter grading.

211A-211B. Comparative and Historical Methods. (4–4) Lecture, three hours. In Progress (211A) and S/U or letter (211B). Strategies of Research and Conceptualization. Topics include relationship of theory and fact to social sciences, logic of comparative and historical analysis, and substantive paradigms of comparative and historical analysis. Reading involves methodological examination of basic works in representative problem areas. 211B. Research Techniques. Requisite: course 211A. Topics include problem of evidence, quantitative and qualitative data. Techniques of data analysis, including use of manuscript context, content analysis, collective biography, and secondary analysis.

212A. Quantitative Data Analysis. (4) Lecture, three hours; discussion, one hour. Enforced requisite: courses 210A, 210B. Course 212A is enforced requisite to 212B. Analysis and interpretation of primarily nonexperimental quantitative data, with focus on sample survey. Using an extensive sample of statistical methods employed in previous courses, culminating in term paper in style of American Sociological Review or similar journal article. Topics include: inferential hypothesis testing, correlation, log-linear analysis, ordinary least squares regression, regression with interactions, robust regression, diagnostic procedures, and methods for handling complex sample survey data. Credit is not to be given only on completion of course 212B.

212B. Quantitative Data Analysis. (4) Lecture, three hours; discussion, one hour. Enforced requisite: course 212A. Analysis and interpretation of primarily nonexperimental quantitative data, with focus on sample survey and census data. Extensive practice at utilizing statistical methods encountered in previous courses, culminating in term paper in style of Ameri-
223. Psychological and Interactionist Perspectives on Selected Topics. (4) Lecture, three hours. Comparison of phenomenological and symbolic interaction perspectives by examining particular body of life or current social issue; substantive topics vary; attention on development of phenomenological and interactionist thought on topic of concern, with special concern for ambiguities and divergences both within and between approaches. When relevant, attention on logical and historical relations of phenomenology and interactionism of pragmatist, existentialist, and general philosophy, S/U or letter grading.

M225A. Applications of Economic Theory: California Population Research Topical Seminar Series. (4) (Same as Economics M204A.) Seminar, three hours. Limited to California Center for Population Research (CCPR) affiliates. Examines issues such as demography, health, aging, labor, and broad array of topics concerned with effects of economic, social, and political transformations on human behavior both in U.S. and in other countries. When relevant, attention on logical and historical relations of philosophy and sociology in Western societies, S/U or letter grading.

227. Sociology of Knowledge. (4) Lecture, three hours. Designed for graduate students. Survey of theories and research concerning social determinants of systems of knowledge and role of intellectual and artistic elites in Western societies, S/U or letter grading.

228. Critical Issues in Macrosociology. (4) Lecture, three hours. Conceptual introduction to macro-sociology in which exemplary works are read, studied for substance and methods, and critiqued in seminar and in written papers, S/U or letter grading.

230A-230B. Comparative Ethnicity, Race, and Nationalism. (4–4) Seminar, three hours. Preparation for independent research on comparative ethnic, race, and nationalism through close reading of key theoretical and empirical works, S/U or letter grading.

230C. Comparative Ethnicity, Race, and Nationalism. (4) Seminar, three hours. Introduction to comparative theory of race and ethnicity and effort to demonstrate merits of double comparative approach to race, one that strives to be as comparative at substantive level as gender, age, and class, and in analyses of particular cases, S/U or letter grading.

232. Class, Politics, and Society. (4) Lecture, four hours. Nature of class structure and how it affects distribution of resources; degree of class structure to politics and political power. Issue of salience of class versus other identities such as gender, age, race, and nationalization. Examination of contemporary globalization tendencies of capitalism, S/U or letter grading.

233. Foundations of Political Sociology. (4) Lecture, three hours. Designed for graduate students. Survey of field of political sociology, oriented around critical theoretical, major theoretical traditions, and contemporary exemplars. Special attention to competing perspectives on power, theory of state, and relationship of class structure to politics, S/U or letter grading.

234. Sociology of Development. (4) Seminar, three hours. Discussion of theoretical, historical, and specific issues in sociology of development (e.g., world system theory, developmental state, import substitution industrialization, export promotion industrialization, neoliberalism in Latin America, new approaches), S/U or letter grading.

235A-235B. Race/Ethnicity in U.S. (4–4) Lecture, three hours. Survey of theoretical and empirical literature on race, ethnicity, and immigrant groups in U.S. to provide comparative analysis of racial/ethnic groups as well as provide detailed knowledge of particular racial/ethnic groups and their experiences within historical contexts, to understand structural integration into U.S. society (i.e., structural assimilation or socioeconomic mobility), and to examine theoretical approaches to understanding race and ethnicity in contemporary society. Preparation for field examination in race and ethnicity, S/U or letter grading.

236A. International Migration. (4) Lecture, three hours. Comprehensive overview of key current theoretical debates in study of international migration, with focus on exploration of possibilities of comparative (historical and cross-national) research program in field, linking North America to other global experiences of immigration, S/U or letter grading.

236B. International Migration. (4) Seminar, three hours. Further exploration of key current theoretical debates in study of international migration, with emphasis on comparing both theoretical debates of field and empirical data and case studies on which those debates hinge, to encourage students to undertake research in field, S/U or letter grading.

236C. International Migration. (4) Lecture, three hours. Designed for students beginning or undertaking original research in field of international migration. Outside lecture, preparation of presentations of student projects, circulation of completed or draft student papers, S/U or letter grading.

237. Seminar: Theory and Research in Comparative Social Analysis. (2) Seminar, two hours. Designed for graduate students. Emphasis on one issue of particular importance for comparative analysis of capitalism and socialism, placed in historical and cross-national context, with particular focus on sociology (along with economics, political economy, and production of culture). S/U or letter grading.

238. Sociology of Gender and Sexuality. (4) Seminar, three hours. Discussion of various dimensions of gender and sexuality, including gendered experiences of socialization, including cultural institutions, economy, and family, within context of experiences of black women and black men in contemporary U.S. Letter grading.

239. Social Stratification, Mobility, and Inequality. (4-4) Lecture, three hours. Enforced requisites: courses 239A and 239B are enforced requisites to 239B. Introduction to social stratification, mobility, and inequality in U.S. and abroad, with focus on concepts, data, methods, and facts about occupational and class structure, intergenerational transmission of socioeconomic status, effects of family, school, and labor market on socioeconomic achievement, careers, and inequality; earnings, income, and wealth distribution; poverty; social mobility; socioeconomic factors and marriage, gender and family, social stratification; and health disparities, S/U or letter grading.

240. Sociology of Education. (4) Lecture, three hours. Overview of social scientific study of education, with special focus on sociological analysis of education (S/U or letter grading).

242A-242C. Conversation Analysis II, III. (4-6) Lecture, three hours; discussion, two hours. Exploration of classical approaches to cultural sociology. Continuation of introduction to some structures basic to organization of conversational interaction: organization of repair, and practices of word selection and reference to persons, places, time, and action. S/U or letter grading.

244A. Conversational Structures I. (4) Formerly numbered 244A.) Lecture, three hours; discussion, one hour. Introduction to various structures employed in organization of conversational interaction, such as turn-taking, action sequencing, and repair. Concurrently scheduled with course CM124A, S/U or letter grading.

244B-244C. Conversation Analysis II, III. (4-6) Lecture, three hours; discussion, two hours. S/U or letter grading.

248. Selected Topics in Culture and Society. (4) Seminar, three hours. Discussion, one hour. Designed for graduate students. Seminar is designed for students to situate contemporary experiences of immigration. S/U or letter grading.

248B. International Migration. (4) Seminar, three hours. Further exploration of key current theoretical debates in study of international migration, with emphasis on comparing both theoretical debates of field and empirical data and case studies on which those debates hinge, to encourage students to undertake research in field, S/U or letter grading.

254. Cultural Sociology: Classical and Contemporary Approaches. (4) Lecture, one hour; discussion, two hours. Exploration of classical approaches to cultural sociology. Focus on exploration of possibilities of comparative (historical and cross-national) research program in field, linking North America to other global experiences of immigration, S/U or letter grading.

258. Sociology of Emotions. (4) Lecture, two hours; discussion, two hours. Examination of emotions: motivational, cognitive, psychophysiological, and behavioral; repression, social oppression, and emotions; creativity and expressive self, emotions and artifacts, experiences of change, emotions and artifacts, experiences of change, emotions and artifacts, experiences of change, emotions and artifacts, experiences of change.

264. Sociology of Emotions. (4) Lecture, two hours; discussion, two hours. Emotions: motivational, cognitive, psychophysiological, and behavioral; repression, social oppression, and emotions; creativity and expressive self, emotions and artifacts, experiences of change. S/U or letter grading.

274. Sociology of Emotions. (4) Lecture, two hours; discussion, two hours. Emotions: motivational, cognitive, psychophysiological, and behavioral; repression, social oppression, and emotions; creativity and expressive self, emotions and artifacts, experiences of change. S/U or letter grading.

284. Sociology of Emotions. (4) Lecture, two hours; discussion, two hours. Emotions: motivational, cognitive, psychophysiological, and behavioral; repression, social oppression, and emotions; creativity and expressive self, emotions and artifacts, experiences of change. S/U or letter grading.

286. Sociology of Emotions. (4) Lecture, two hours; discussion, two hours. Emotions: motivational, cognitive, psychophysiological, and behavioral; repression, social oppression, and emotions; creativity and expressive self, emotions and artifacts, experiences of change. S/U or letter grading.

294. Sociology of Emotions. (4) Lecture, two hours; discussion, two hours. Emotions: motivational, cognitive, psychophysiological, and behavioral; repression, social oppression, and emotions; creativity and expressive self, emotions and artifacts, experiences of change. S/U or letter grading.

298. Sociology of Emotions. (4) Lecture, two hours; discussion, two hours. Emotions: motivational, cognitive, psychophysiological, and behavioral; repression, social oppression, and emotions; creativity and expressive self, emotions and artifacts, experiences of change. S/U or letter grading.

304. Sociology of Emotions. (4) Lecture, two hours; discussion, two hours. Emotions: motivational, cognitive, psychophysiological, and behavioral; repression, social oppression, and emotions; creativity and expressive self, emotions and artifacts, experiences of change. S/U or letter grading.
operators. Special attention to effects of social change on culture and human development. S/U or letter grading.

250. Sociology of Health. (4) Seminar, three hours. Exploration of literature of human health as product of society. Macro focus and micro focus used to examine relevance of macro organizational features of national society (culture, economy, politics) while maintaining awareness that link these to micro-level influences to personal experience (mind, body, emotion). Main focus on modern industrial societies and organized around many leading issues in sociology of health. Letter grading.

251. Social Movements. (4) Seminar, three hours. In-depth exploration of current theoretical debates and empirical research on social movements, collective action, and contentious politics, examining case studies, comparative analyses, and large-N investigations, with focus on developing student expertise in understanding social movement research and conceptualizing research projects. S/U or letter grading.

M252. Selected Topics in Sociology of Gender. (4) (Same as Gender Studies M252.) Lecture, two hours; discussion, two hours. Designed for graduate students. Seminar on selected topics in sociology of gender. May be repeated for credit. Letter grading.

253. Politics of Reproduction, Gender, and Family. (4) Lecture, one hour. Practices of communication, gender, and family life for both middle-class and low-income populations. Exploration of notions of black masculinity and femininity within black body and critical interrogation of notions of blackness and authenticity in racial identification. Contribution to understanding of black intimate relationships in different contexts, including lesbian and gay identities, Caribbean and other ethnic identities, and interracial intimacies. S/U or letter grading.

M253. Demographic Sociology of Los Angeles. (4) (Same as Community Health Sciences M263.) Lecture, three hours. Designed for graduate students. Use of city of Los Angeles as major social and demographic factors that characterize cities in the U.S. Examination of role of these factors in affecting health outcomes. Letter grading.


256B. Selected Problems in Analysis of Conversation. (4) Lecture, three hours. Requisites: courses 244A, 244B. Variable topics/format course. Consult instructor for topics and formats to be offered in specific term. May be repeated for credit with topic change. S/U or letter grading.

256C. Selected Problems in Psychosocial Analysis. (4) (Same as Anthropology M244P) Lecture, two hours. Recommended preparation: acceptable to seminar. Selections of problems in interpretation of sociology and psychoanalysis, which may be substantive (group development, socialization, culture, deviance, collective behavior) or methodological; latter focuses on clinical fieldwork and experimental use of psychoanalytic and sociotechnical techniques. S/U or letter grading.


260A. Topics in Social and Cultural Movements. (4) (Same as American Indian Studies M263.) Requisite: course 260. Seminar, one hour. Opportunity to advance research projects in progress and to develop skills of constructive criticism in discussing work of others.

261. Working Group in Sociology. (1 to 4) Discussion, two to three hours. Variable topics in sociology of gender; ethnicity; social networks; race, ethnicity, immigration; and social demography and stratification. Advanced study and analysis of current topics in specialized areas of sociology. May be repeated for credit. S/U grading.

262. Cross-Cultural Perspectives on Gender. (4) (Same as Gender Studies M252.) Seminar, three hours. How does gender manifest itself in the lives of different women and men, including women and men, and impact on changing family forms and the development of intergenerational, ethnic and cultural identities, and cross-cultural change? Is gender too different cross-culturally? S/U or letter grading.


C258. Talk and Social Institutions. (4) Lecture, four hours; discussion, one hour. Practices of communication and social interaction in number of major institutional settings in contemporary society. Setting may include emergency services, police and courts, medicine, news interviews, and political oratory. Currently scheduled with course CM125. S/U or letter grading.

268. Economy and Society. Discussion, two hours. (4) Discussion, two hours. Designed for graduate students. Review and critique of major analytical traditions in the study of economic systems and their historical development. S/U or letter grading.

269. Sociology of Medicine. (4) Seminar, three hours. Review and analysis of various theoretical frameworks in sociology of medicine. Topics include medicine, culture, and capitalism; professions and power; challenge of managed care, sick role and social control, interactionism and negotiation, social class, sickness and self, debates over medicalization and demedicalization. Prepared as preparation for field examination in sociology of health and medicine and specifically for themes traditionally included under medical sociology/sociology of medicine. S/U or letter grading.

270. Demographic Sociology of Los Angeles. (4) Seminar, three hours. Use of city of Los Angeles as major social and demographic factors that characterize cities in the U.S. Examination of role of these factors in affecting health outcomes. Letter grading.


278. Sociology of Latin America. (4) Lecture, one hour; discussion, two hours. Designed for graduate students. Selected topics in sociological study of Latin America (social movements, social institutions, ethnicity, race and ethnicity, stratification, and social development. Letter grading.

280. Trafficking, Gender, Health, and Human Rights. (4) (Same as Law M577.) Seminar, four hours. Review and critical assessment of diverse literature on international traffic of persons, with emphasis on significance of sociological, legal, and gender aspects of trafficking. Primary focus on trafficking for sex work and subsequent lines between discourse on commercial sex trade and trafficking. Additional issues include role of political and economic transition, militarization, health implications of trafficking, trafficking for non-sexual labor, and role of advocacy. S/U or letter grading.

281. Selected Problems in Mathematical Sociology. (4) Lecture, three hours. Exploration of some mathematical models of sociological processes. Possible topics: social choice and decision making, kinship relations, organizations, social interaction. S/U or letter grading.

282. Sociology of Medicine. (4) Seminar, three hours. Review, analysis, and discussion of major theoretical frameworks in sociology of medicine. Topics include medicine, culture, and capitalism; professions and power; challenge of managed care, sick role and social control, interactionism and negotiation, social class, sickness and self, debates over medicalization and demedicalization. Prepared as preparation for field examination in sociology of health and medicine and specifically for themes traditionally included under medical sociology/sociology of medicine. S/U or letter grading.

283. Communication in Medical Care. (4) Seminar, three hours. Review and development of empirical knowledge about doctor-patient relationship. Analysis of nature and dynamics of routine office visits, with focus on role of norms in regulating doctor-patient conduct, role of expertise and power in doctor-patient relationship, and methodological questions concerning how doctor-patient relationship can be analytically included under medical sociology/sociology of medicine. S/U or letter grading.


285A-285Z. Special Topics in Sociology. (4) (Same as American Indian Studies M244P) Seminar, three hours. Designed for graduate students. Seminars on selected current topics of sociological interest. Consult Schedule of Classes for topics and instructors. May be repeated for credit. S/U or letter grading.

287. Topics in Chinese Sociology. (4) Seminar, three hours. Preparation: at least two upper-division courses on China in any social sciences discipline. Introduction to current research questions in Chinese sociology, as well as major themes in study of Chinese society, both historical and contemporary, including demographic, economic, political, and social change after and before 1949. S/U or letter grading.

289A-289Z. Data Analysis. (2-4) Requisite: courses 244A, 244B. S/U or letter grading.

291. Data Analysis. Laboratory, two hours. Practice in analysis of conversational data. May be repeated for credit. S/U or letter grading.

292. Problems in Social Research Analysis. (2-4) Requisite: courses 244A, 244B. S/U or letter grading.

C297. Urban and Suburban Sociology. (5) Seminar, three hours. History and present condition of cities and suburbs in America, with stress on global cities such as New York and Los Angeles, and comparisons to London and Shanghai. Process of suburbanization and urbanization in early and late 20th century. Analysis of city politics, house and architectural styles, crime, urban terror, public housing and ghettos, segregation and integration of neighborhoods, questions of gentrification. Immigrant experiences (especially in art, museums, and movie and music industries), and environmentalism. Concurrently scheduled with course C191N. Letter grading.

295. Workshop in Culture and Society. (4) Seminar, two hours every other week. Interdisciplinary workshop for graduate students and faculty pursuing theory and research in topics related to interplay of culture and society, whether social, literary, or philosophical in nature. S/U grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprentice must have intensive guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U or letter grading.


495. Supervised Teaching of Sociology. (2) Seminar, two hours. Preparation: appointment as teaching assistant or fellow in Sociology. Directed course for teaching assistants designed to deal with problems and techniques of teaching introductory sociology. S/U grading.
Spanish and Portuguese

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Overview

The Department of Spanish and Portuguese is dedicated to the study and teaching of the languages, literatures, and cultures of the Hispanic heritage in all areas of the world, particularly on the continents of Europe and America. It maintains a strong commitment to the value of original research and professional instruction at all levels of its activities.

Whether studying for the Bachelor of Arts (BA), Master of Arts (MA), or Doctor of Philosophy (PhD) degree, students are given careful guidance in the choice of courses and in the preparation of a study program. The richness of Hispanic culture is amply represented in the extensive range of courses in language, linguistics, and literature. Although the literatures of Spain, Portugal, Brazil, and Spanish America predominate, courses are also offered in Chicanos literature. The breadth of courses offered by the department allows undergraduate students to pursue many possible interests and enables graduate students to concentrate in depth in several areas of specialization.

Department courses are primarily designed to serve the five BA programs: BA in Spanish, BA in Spanish and Community and Culture, BA in Spanish and Linguistics, BA in Spanish and Portuguese, and BA in Portuguese and Brazilian Studies; as well as to prepare students for its three graduate programs: MA in Spanish, MA in Portuguese, and PhD in Hispanic Languages and Literatures. The courses are also functionally supportive of such interdepartmental programs as the BA, MA, and PhD programs in Chicana and Chicano Studies, BA and MA programs in Latin American Studies, and MA and PhD programs in Comparative Literature.

Undergraduate Policies

Language Acquisition Courses

Beginning- and intermediate-level Spanish language courses are offered for Spanish second language learners and Spanish heritage learners. Beginning- and intermediate-level Portuguese language courses are offered for second language learners and learners proficient in another Romance language.

The approach is proficiency-oriented, communicative, and task-based. Students develop communicative competence in all four skill areas (listening, speaking, reading, and writing). Classes are conducted completely in Spanish or Portuguese.

Language courses are delivered in a blended form; students are required to attend face-to-face class meetings and also complete two hours per week of work assigned, online. The two hours of online work are included in the required contact hours for the course.

Students with one or more years of high school Spanish or Portuguese who plan to enroll in Spanish 1 through 27 should take the departmental placement examination. Consult the Schedule of Classes or the department office for more information.

No credit is allowed for completing a less advanced course after successful completion of a more advanced course in Spanish and Portuguese grammar and/or composition.

Undergraduate Majors

Spanish BA

Capstone Major

The Spanish major is a designated capstone major. Seniors complete a capstone seminar that provides unique opportunity to work closely with a faculty member on a focused topic of research. Through their capstone work students are expected to demonstrate mastery of the Spanish language, along with specific skills and expertise acquired in earlier coursework. Additionally, students acquire a working knowledge of scholarly discourse relative to a specialized topic, conceive and execute an associated project, and engage with a community of scholars, presenting their work to peers and helping to further peers’ work through discussion and critique.

Learning Outcomes

The Spanish major has the following learning outcomes:

- Demonstrated written and oral mastery of the Spanish language
- Demonstrated specific skills and expertise, including research, analysis, and writing
- Identification and analysis of appropriate primary sources
- Conception and execution of a project that identifies and engages with a specialized topic
- Working knowledge of scholarly discourse relative to a specialized topic
- Engagement with peers through presentation, discussion, and critique of student work

Entry to the Major

Transfer Students

Transfer applicants to the Spanish major with 90 or more units must complete the following introductory courses prior to admission to UCLA: two years of Spanish, one Spanish civilization course, and one Spanish American civilization course.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.
Requirements

Preparation for the Major
Required: Spanish 25 or 27, 42, 44.

The Major
Required: (1) Two core courses (Spanish 119 and 120), (2) eight upper-division Spanish elective courses in literature, culture, linguistics, media, service learning, or interdisciplinary studies, up to three of which may be from an outside department that deals with Spain or Spanish America and have been approved by the undergraduate adviser, and (3) one senior capstone seminar (Spanish 191C).

Honors Program
Portuguese 198A and Spanish 198A are 4-unit courses in which students research and prepare a draft of a thesis on a selected topic; Portuguese 198B and Spanish 198B are 2-unit courses in which students complete the final thesis draft of approximately 25 to 30 pages. Approval of the honors thesis by the faculty mentor is the final requirement for departmental honors. Portuguese 198A-198B and Spanish 198A-198B may not be applied toward the majors.

Policies

Preparation for the Major
Each course must be taken for a letter grade and passed with a grade of C or better prior to beginning upper-division work in the major.

The Major
Each course must be taken for a letter grade and passed with a grade of C or better.

By petition, and after consultation with the undergraduate adviser, up to three 4-unit Spanish 197 or 199 courses may be applied toward the majors.

Honors Program
The departmental honors program is open to majors who have completed a minimum of six upper-division major courses with a 3.7 grade-point average or better in those six courses. Eligibility is verified by the departmental counselor. On the basis of their coursework and special interests, students then consult with a faculty member in that field and formulate a research project that they pursue under the faculty member’s guidance through Portuguese 198A-198B or Spanish 198A-198B.

Spanish and Community and Culture BA

Capstone Major
The Spanish and Community and Culture major is a designated capstone major. Students participate in community-based experiential learning courses coupled with elective and adjunct courses. Reflective journals, final projects, and in-class presentations are required. Through their capstone work, students should have mastery of the Spanish language, ability to conduct and interpret research to determine the needs of specific communities, critical understanding and ability to apply theories within a service context, sensitivity to diversity and cultural differences, and ability to perform scholarly presentations that tie current issues to research and theory.

Learning Outcomes

The Spanish and Community and Culture major has the following learning outcomes:

1. Demonstrated written and conversational mastery of the Spanish language
2. Conduct and interpret research to determine the needs of specific communities
3. Demonstrated critical understanding of, and ability to apply, theories within a service context
4. Demonstrated sensitivity to diversity and cultural differences
5. Performance of scholarly presentations that tie current issues to research and theory
6. Articulation of the value of civic engagement

Entry to the Major

Transfer Students
Transfer applicants to the Spanish and Community and Culture major with 90 or more units must complete the following introductory courses prior to admission to UCLA: two years of Spanish, one Spanish civilization course, and one Spanish American civilization course.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Spanish and Linguistics BA

Learning Outcomes

The Spanish and Linguistics major has the following learning outcomes:

1. Demonstrated technical mastery of the Spanish language, including pronunciation (phonetics and phonology), history (historical linguistics), and structure (syntax)
2. Demonstration of how to do basic spoken language research in Spanish linguistics, emphasizing Latin American Spanish and Chicano Spanish or Los Angeles vernacular
3. Identification and analysis of appropriate primary linguistic sources within the generative framework
4. Working knowledge of scholarly discourse in a specialized Spanish linguistics topic (phonology, syntax, and historical linguistics)
5. Conception and execution of a project that identifies and engages with a specialized Spanish linguistics topic as a result of the practical part of the courses on phonetics and phonology and on syntax

Entry to the Major

Transfer Students
Transfer applicants to the Spanish and Linguistics major with 90 or more units must complete the following introductory courses prior to admission to UCLA: two years of Spanish, one introduction to linguistics course, and one Spanish or Spanish American civilization course.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.
Requirements

Preparation for the Major
Required: Linguistics 20 (with grade of B– or better), Spanish 25 or 27, M35 (or Portuguese M35), 42 or 44.

The Major
Required: (1) Spanish 100A, 100B, 119, Linguistics 103, 120A, 120B, (2) one course from Linguistics 160 or 165A or 165B, and (3) four upper-division Spanish electives, two of which must be from Spanish 160.

Honors Program
Portuguese 198A and Spanish 198A are 4-unit courses in which students research and prepare a draft of a thesis on a selected topic; Portuguese 198B and Spanish 198B are 2-unit courses in which students complete the final thesis draft of approximately 25 to 30 pages. Approval of the honors thesis by the faculty mentor is the final requirement for departmental honors. Portuguese 198A-198B and Spanish 198A-198B may not be applied toward the majors.

Policies

Preparation for the Major
Each course must be taken for a letter grade and passed with a grade of C or better prior to beginning upper-division work in the major, except Linguistics 20, which must be passed with a grade of B– or better.

The Major
Each course must be taken for a letter grade and passed with a grade of C or better.

Honors Program
The departmental honors program is open to majors who have completed a minimum of six upper-division major courses with a 3.7 grade-point average or better in those six courses. Eligibility is verified by the departmental counselor. On the basis of their coursework and special interests, students then consult with a faculty member in that field and formulate a research project that they pursue under the faculty member’s guidance through Portuguese 198A-198B or Spanish 198A-198B.

Spanish and Portuguese BA

Learning Outcomes
The Spanish and Portuguese major has the following learning outcomes:

- Demonstrated oral, aural, and written mastery of the Spanish and Portuguese languages
- Demonstrated specific skills and expertise, including research, analysis, and writing
- Conception and execution of research projects that identify and engage with a specialized topic
- Identification and analysis of appropriate primary sources
- Working knowledge of scholarly discourse on a specialized topic
- Engagement with peers through presentation, discussion, and critique of student work

Entry to the Major

Transfer Students
Transfer applicants to the Spanish and Portuguese major with 90 or more units must complete the following introductory courses prior to admission to UCLA: two years of Spanish, one year of Portuguese, one Spanish civilization course or one Spanish American civilization course, and one Brazilian culture course.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major
Required: Portuguese 25 or 26 or 27 (27 recommended), M35 (or Spanish M35), 46, Spanish 25 or 27, 42 or 44.

The Major
Required: (1) One course from Spanish 100A or 100B and one course from Portuguese 100A or 100B, (2) Spanish 119, 120, Portuguese 130A or 130B, (3) six 4- or 5-unit upper-division elective courses, two of which must be in Spanish and three of which must be from the Portuguese offerings, including those taught in English. Only upper-division courses taught in the target language may be applied toward the major, except the Portuguese courses taught in English.

Honors Program
Portuguese 198A and Spanish 198A are 4-unit courses in which students research and prepare a draft of a thesis on a selected topic; Portuguese 198B and Spanish 198B are 2-unit courses in which students complete the final thesis draft of approximately 25 to 30 pages. Approval of the honors thesis by the faculty mentor is the final requirement for departmental honors. Portuguese 198A-198B and Spanish 198A-198B may not be applied toward the majors.

Policies

Preparation for the Major
Each course must be taken for a letter grade and passed with a grade of C or better.

The Major
Each course must be taken for a letter grade and passed with a grade of C or better prior to beginning upper-division work in the major.

By petition, and after consultation with the undergraduate faculty adviser, up to three 4-unit Portuguese civilization courses or one Brazilian culture course may be applied toward the majors.

Honors Program
The departmental honors program is open to majors who have completed a minimum of six upper-division major courses with a 3.7 grade-point average or better in those six courses. Eligibility is verified by the departmental counselor. On the basis of their coursework and special interests, students then consult with a faculty member in that field and formulate a research project that they pursue under the faculty member’s guidance through Portuguese 198A-198B or Spanish 198A-198B.

Portuguese and Brazilian Studies BA

Study Abroad
Students are encouraged to spend up to one year in a Portuguese-speaking country to study in a university or conduct research. Appropriate credit may be granted in accordance with the individual program, arranged in consultation with the undergraduate faculty adviser in Portuguese. Proposals must be submitted in advance in writing and must be approved by the department.

Learning Outcomes
The Portuguese and Brazilian Studies major has the following learning outcomes:

- Demonstrated oral, aural, and written mastery of the Portuguese language
- Demonstrated specific skills and expertise, including research, analysis, and writing
- Conception and execution of research projects that identify and engage with a specialized topic
- Identification and analysis of appropriate primary sources
- Working knowledge of scholarly discourse relative to a specialized topic
- Engagement with peers through presentation, discussion, and critique of student work

Entry to the Major

Transfer Students
Transfer applicants to the Portuguese and Brazilian Studies major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of Portuguese, one nature of language course, one Portuguese civilization course or one Brazilian civilization course, and one Brazilian culture course.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements

Preparation for the Major
Required: Portuguese 25 or 26 or 27 (27 recommended), 46.

The Major
Required: Ten upper-division courses (45 units minimum), including Portuguese 100A or 100B, 130A or 130B, and seven elective courses selected from 100A through 199.

Honors Program
Portuguese 198A and Spanish 198A are 4-unit courses in which students research and prepare a draft of a thesis on a selected topic; Portuguese 198B and Spanish 198B are 2-unit courses in which students complete the final thesis draft of approximately 25 to 30 pages.
Approval of the honors thesis by the faculty mentor is the final requirement for departmental honors. Portuguese 198A-198B and Spanish 198A-198B may not be applied toward the majors.

**Policies**

**Preparation for the Major**

Each course must be taken for a letter grade and passed with a grade of C or better prior to beginning upper-division work in the major.

**The Major**

Out of the seven elective courses, three courses from outside the department that focus on Brazil, Portugal, or Lusophone Africa may be applied toward the major with approval of the undergraduate adviser. A minimum of five out of the seven elective courses must be taken in Portuguese.

Each course must be taken for a letter grade and passed with a grade of C or better.

By petition, and after consultation with the undergraduate adviser, up to three 4-unit Portuguese 197 or 199 courses may be applied toward the major.

**Honors Program**

The departmental honors program is open to majors who have completed a minimum of six upper-division major courses with a 3.7 grade-point average or better in those six courses. Eligibility is verified by the departmental counselor. On the basis of their coursework and special interests, students then consult with a faculty member in that field and formulate a research project that they pursue under the faculty member’s guidance through Portuguese 198A-198B or Spanish 198A-198B.

**Double Majors**

Through judicious use of electives, students may find it possible to secure the BA degree with two complete majors (e.g., Portuguese/Spanish, Portuguese/History, Portuguese/Sociology, etc.). Interested students should consult with the undergraduate adviser in Portuguese as early as possible in their BA program.

**Undergraduate Minors**

**Mexican Studies Minor**

The Mexican Studies minor allows students with an interest in Mexico to augment their major programs with courses that expose them to the history, literature, and culture of Mexico. Given Southern California’s proximity to Mexico, the demographics of Los Angeles, and the shared history of Mexico and the Southwest, the minor is a natural complement to many majors.

**Admission**

To enter the minor, students must have an overall grade-point average of 2.0 or better and must complete or show proficiency equivalent to two years of college-level Spanish. A petition to declare the minor should be filed with the undergraduate counselor in 5314 Rolfe Hall.

**The Minor**

- **Required Lower-Division Courses (8 to 9 units):** Spanish 25 or 27, and one course from History 8A, 8B, 8C, or Spanish 44.
- **Required Upper-Division Courses (20 to 22 units):** Three Mexican culture and literature courses selected from Spanish 135 through 180 in consultation with the undergraduate adviser and two courses from Anthropology 114P, Chicana/o and Central American Studies M102, M108A, 120, M125, M132, 142, 172, 184, Ethnomusicology M106A, History 157B, 160B.

**Policies**

By petition and after consultation with the undergraduate adviser, one 4-unit 197 or 199 course may be applied toward the minor.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade and passed with a grade of C or better. Students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

**Portuguese and Brazilian Studies Minor**

**Admission**

To enter the Portuguese and Brazilian Studies minor, students must have an overall grade-point average of 2.0 or better and must complete Portuguese 27 or equivalent. A petition to declare the minor should be filed with the undergraduate counselor in 5314 Rolfe Hall.

**The Minor**

- **Required Lower-Division Courses (9 units):** Portuguese 25 or 26 or 27 (27 recommended), and 46.
- **Required Upper-Division Courses (20 units):** Three courses selected from Portuguese 100A through 199, and two upper-division courses on a Brazilian topic.

**Policies**

Courses may be taken in Portuguese or English, but must be clearly related to an aspect of Brazilian studies.

Only one 4-unit Portuguese 197 or 199 course may be applied toward the minor.

By petition, up to two upper-division courses on Portugal or Brazil may be taken in other departments and applied toward the minor.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade and passed with a grade of C or better. Students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

**Spanish Minor**

**Admission**

To enter the Spanish minor, students must have an overall grade-point average of 2.0 or better and must complete or show proficiency equivalent to two years of college-level Spanish. A petition to declare the minor should be filed with the undergraduate counselor in 5314 Rolfe Hall.

**The Minor**

- **Required Lower-Division Courses (9 units):** Spanish 25 or 27, and 42 or 44.
- **Required Upper-Division Courses (20 to 22 units):** Spanish 119 and four Spanish literature, culture, linguistics, service learning, or media studies courses.

**Policies**

By petition and after consultation with the undergraduate adviser, three 4-unit 197 or 199 courses may be applied toward the minor.

Each minor course must be taken for a letter grade and passed with a grade of C or better. Students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

**Spanish Linguistics Minor**

**Admission**

To enter the Spanish Linguistics minor, students must have an overall grade-point average of 2.0 or better and must complete or show proficiency equivalent to two years of college-level Spanish. A petition to declare the minor should be filed with the undergraduate counselor in 5314 Rolfe Hall.

**The Minor**

- **Required Lower-Division Courses (9 units):** Spanish 25 or 27, M35 (or Portuguese M35).
- **Required Upper-Division Courses (20 to 21 units):** Spanish 100A, 100B, and three upper-division Spanish electives, two of which must be from Spanish 160.

**Policies**

By petition and after consultation with the undergraduate adviser, one 4-unit 197 or 199 course may be applied toward the minor.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.
Graduate Majors

Hispanic Languages and Literatures CPhil, PhD

Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Portuguese MA

Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Spanish MA

Requirements
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Indigenous Languages of the Americas

Lower-Division Courses


5A-5B-5C. Elementary Nahuatl. (4–4–4) (Formerly numbered M5A-MSB-MS5C) Lecture, five hours. Course 5A is enforced requisite to 5B, which is an enforced requisite to 15B, which is enforced requisite to 15C. Taught primarily in Nahuatl. Examination of Nahuatl (Aztec) language of central Mexico at intermediate level. Coverage of Nahuatl grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

15A-15B-15C. Intermediate Nahuatl. (4–4–4) (Formerly numbered M15A-M15B-M15C) Lecture, four hours. Enforced requisites: courses 5A, 5B, 5C. Course 15A is enforced requisite to 15B, which is enforced requisite to 15C. Taught primarily in Nahuatl. Examination of Nahuatl (Aztec) language of central Mexico at intermediate level. Coverage of Nahuatl grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

17. Intensive Elementary Quechua. (12) Lecture, 15 hours; laboratory, five hours. Intensive course equivalent to courses 18A, 18B, 18C. Language of Incas and its present-day dialects, as spoken in Andean South America. Offered in summer only. Letter grading.

596. Directed Studies in Quechua. (1 to 8) Tutorial, to be arranged. Requisites: courses 119A, 119B, 119C. Directed individual study or research in Quechua. Four units may be applied toward MA degree requirements. May be repeated for credit. S/U grading.

Portuguese

Lower-Division Courses

1. Elementary Portuguese. (4) Lecture, three hours; laboratory, two hours. Taught in Portuguese. Laboratory is online. Introductory Portuguese language and culture course that is proficiency-oriented, communicative, and task-based to help develop communicative competence in four skill areas (listening, speaking, reading, and writing), as well as cultural competence. P/NP or letter grading.
2. Elementary Portuguese. (4) Lecture, three hours; laboratory, two hours. Taught in Portuguese. Laboratory is online. Introductory Portuguese language and culture course that is proficiency-oriented, communicative, and task-based to help develop communicative competence in four skill areas (listening, speaking, reading, and writing), as well as cultural competence. P/NP or letter grading.
3. Intermediate Portuguese. (4) Lecture, three hours; laboratory, two hours. Taught in Portuguese. Laboratory is online. Intermediate Portuguese language and culture course that is proficiency-oriented, communicative, and task-based to help develop communicative competence in four skill areas (listening, speaking, reading, and writing), as well as cultural competence. P/NP or letter grading.

8A. Portuguese Conversation. (2) Lecture, three hours. Enforced requisite: course 1, 11A, Portuguese Language Assessment Interview, or enrollment in any Portuguese course. Designed to help beginner and intermediate students of Portuguese language improve their conversation skills through discussions, presentations, participation in events, and other communicative situations. Among other elements, practice of formal and informal speaking styles. Use of appropriate vocabulary to discuss issues relevant to students’ lives and to Afro-Luso-Brazilian culture. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

191. Variable Topics Research Seminars: Indigenous Languages. (2 or 4) Seminar, three hours. Research seminars on selected topics on various indigenous languages. Reading, discussion, and development of culminating project. May be repeated for credit with topic change. P/NP or letter grading.

Graduate Course

89HC. Honors Contracts. (1) Tutorial, three hours. Enforced requisite to 15C. Taught primarily in Nahuatl. Examination of Nahuatl (Aztec) language of central Mexico at intermediate level. Coverage of Nahuatl grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

89. Honors Seminars. (1) Seminar, three hours. Enforced requisite: course 1. Limited to 20 students. Designed as adjunct to upper-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for students. Honors content noted on transcript. P/NP or letter grading.

3. Intermediate Portuguese. (4) Lecture, three hours; laboratory, two hours. Taught in Portuguese. Laboratory is online. Intermediate Portuguese language and culture course that is proficiency-oriented, communicative, and task-based to help develop communicative competence in four skill areas (listening, speaking, reading, and writing), as well as cultural competence. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

11A-11B. Intensive Portuguese. (5-5) Lecture, four hours; laboratory, two hours. Taught in Portuguese. Laboratory is online. Accelerated course designed only for students with proficiency in another Romance language. P/NP or letter grading.

13. Intensive Introductory Portuguese Language and Culture. (12) Lecture, 20 hours; laboratory, three hours. Intensive introduction to Portuguese language and culture equivalent to courses 1, 2, and 3, and 11A and 11B. Proficiency-oriented, communicative and task-based approach intended to facilitate communicative competence in four language skills areas: listening, speaking, reading, and writing. Development of cultural awareness of heterogeneous Portuguese-speaking community in America, Europe, and Africa. Intensive accelerated course designed to help students increase their ability to communicate in Portuguese. Offered in summer only. P/NP or letter grading.

8A. Portuguese Conversation. (2) Lecture, three hours. Enforced requisite: course 3 with grade of B or better. P/NP or letter grading.

11A-11B. Intensive Portuguese. (5-5) Lecture, four hours; laboratory, two hours. Taught in Portuguese. Laboratory is online. Accelerated course designed only for students with proficiency in another Romance language. P/NP or letter grading.

191. Variable Topics Research Seminars: Indigenous Languages. (2 or 4) Seminar, three hours. Research seminars on selected topics on various indigenous languages. Reading, discussion, and development of culminating project. May be repeated for credit with topic change. P/NP or letter grading.

25A. Advanced Portuguese: Summer Course. (4) Lecture. Three hours; field trips, and luncheons. Offered in summer only. P/NP or letter grading.

26. Language and Popular Culture. (4) Lecture, three hours; field trips, and luncheons. Development of speaking, reading, and writing skills. Structured in thematic units, with songs, videos, and specific vocabulary emphasizing questions of Brazilian cultural identity. Offered in summer only. P/NP or letter grading.

26A. Language and Popular Culture: Summer Course. (4) Lecture, 20 hours. Enforced requisite: course 3 or 11B. Development of speaking, reading, and writing skills. Structured in thematic units, with songs, videos, and specific vocabulary emphasizing questions of Brazilian cultural identity. Includes cultural activities, field trips, and luncheons. Offered in summer only. P/NP or letter grading.

27. Writing Studies: Afro-Luso-Brazilian World. (4) Lecture, three hours. Requisite: course 3 or 11B. Further development of communicative skills, especially writing. Discussions and activities increase knowledge and awareness of the complex forms of cultural production in Portuguese language. Students continue to acquire cultural competence. Introduction to study of literature, with specific focus on themes and topics pertinent to Lusophone world. P/NP or letter grading.

27A. Advanced Composition and Style: Summer Course. (4) Lecture, 20 hours. Enforced requisite: course 3 or 11B. Practice in writing Portuguese with appropriate vocabulary, syntactical structures, and stylistic patterns. Includes cultural activities, field trips, and luncheons. Offered in summer only. P/NP or letter grading.

M35. Spanish, Portuguese, and Nature of Language. (5) (Same as Spanish M35.) Lecture, three hours; discussion, one hour. Introduction to language study within context of Romance languages, focusing on Spanish and Portuguese. Nature of language: structure, diversity, evolution, social and cultural settings, literary uses, study of language and its relation to other areas of human knowledge. P/NP or letter grading.


46. Brazil and Portuguese-Speaking World. (5) Lecture, four hours; discussion, one hour (when scheduled). Taught in English. Topical analysis of cultural history of Brazil in context of Portuguese-speaking world, with emphasis on comparative, trans-Atlantic relations, social development, and artistic manifestations. P/NP or letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other academic activities led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other academic activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

100A. Phonology and Morphology. (4) Lecture, four hours. Enforced requisite: course 27. Analysis of phonetic, phonemic, and morphological systems of Portuguese or P/NP or letter grading.


102. Foundations of Portuguese Culture in Iberian, Latin American, and Luso-Brazilian Worlds. (4) (Same as Spanish M122.) Lecture, four hours. Requisite: course 25 or 26 or Spanish 25 or 27. Taught in English. Addresses specificities of visual culture in Spanish and Portuguese-speaking worlds. Through critical engagement with wide range of visual materials—from 16th-century maps of Americas to YouTube videos of street protests in Chile; from Modernist architectural designs for new national capitals to telenovelas and colonial photographs; and everything in between—in introduction to practices, processes, objects of study, and interdisciplinary networks of virtual cultural studies. By examining manifestations of visual culture from Iberian, Latin American, and Luso-Brazilian contexts, students gain culturally specific foundations of visual culture and skills of visual literacy. P/NP or letter grading.

130A-130B. Introduction to Literature in Portuguese. (4–5) Lecture, four hours. Enforced requisite: course 25 or 26 or 27. Introduction to principal themes, currents, and authors from Brazil in context of Portuguese-speaking world. P/NP or letter grading.

141A. Literature and Film in Portuguese. (4) Lecture, four hours. Taught in English. Study of intertextuality and dialogism, interactions between literary and cinematic fields, question of fidelity, and equivalents between literary and cinematic expression in Portuguese-speaking world. May be repeated for credit with topic change. P/NP or letter grading.

141B. Film, Television, and Society in Brazil. (4) Lecture, four hours. Taught in English. Study of development, evolution, and impact of film and television in Brazil against backdrop of broader social, historical, and cultural contexts. May be repeated for credit: P/NP or letter grading.

141C. Documentary Film. (4) Lecture, four hours. Taught in English. Overview of documentary film production in Portuguese-speaking world, with special focus on period since 1985. May be repeated for credit with topic change. P/NP or letter grading.

142A. Brazil and Its Culture. (4) Lecture, four hours. Taught in English. Exploration of roots of contemporary Brazil through study of broad chronological periods from Portuguese colonization to present and how they shaped idea of Brazilian exceptionalism, racial mixture as source of national identity, and Lusotropicism and its influence on Brazilian historiography. May be repeated for credit with topic change. P/NP or letter grading.

142B. Brazil and Portuguese in Comparative Perspective. (4) Lecture, four hours. Taught in English. Study of social and cultural trends in Portugal and Brazil, with emphasis on issues of migration, dialogue, and contention in historical context. May be repeated for credit with topic change. P/NP or letter grading.


143A. Colony, Intellectuals, and History. (4) Lecture, four hours. Taught in English. Course 27. Investigation of way that Brazilian maritime expansion from 15th to early 19th century was represented and interpreted in writings from across empire. May be repeated for credit with topic change. P/NP or letter grading.

143B. Transatlantic Literature in Portuguese. (4) Lecture, four hours. Enforced requisite: course 27. Study of modern relations between Portugal and Portuguese-speaking world in literature and arts. May be repeated for credit with topic change. P/NP or letter grading.

143C. Modernism, Modernity, and Identity. (4) Lecture, four hours. Enforced requisite: course 25 or 26 or 27. Examination of concepts and practice of modernism in Portuguese-speaking world, with primary focus on 1920s. Reading and discussion of poems on sociohistorical context, relations with European avantgarde, modernist poetics and polemics, and for national identity as expressed in period’s poetry and prose. May be repeated for credit with topic change. P/NP or letter grading.

143D. Contemporary Literature in Portuguese. (4) Lecture, four hours. Requisite: course 25 or 26 or 27. Exploration of connections between literatures of Angola, Brazil, and Portugal against background of globalization and Internet. May be repeated for credit with topic change. P/NP or letter grading.

175. Topics in Creative Writing and Literary Translation. (4) Seminar, three hours. Requisite: course 25 or 26 or 27. Exploration of art of translation or creative writing. Guest speakers or instructors include professional literary translators, poets, novelists, playwrights, and filmmakers, and will focus on methodology, and practice of their art. May be repeated for credit with topic change. P/NP or letter grading.

180. Topics in Visual Culture. (4) Lecture, four hours; discussion, one hour (when scheduled). Requisite: Portuguese 25 or 26 or 27. Study of visual knowledge production in Latin America and Iberia as complex relation between visual subjects, practices, and representation in Latin American, Afro-Luso-Brazilian, and Iberian contexts. Objects of analysis may include architecture and urban design, digital media and other technologies, documentaries, fashion, fictional and experimental films, graphic novels and other media, maps and cartography, photography, plastic arts, and art history, theater and performance, video, among others. May be repeated four times for credit with topic change. P/NP or letter grading.

187FL. Special Studies: Readings in Portuguese. (2) Seminar, two hours. Enforced requisite: course 27. Students must be concurrently enrolled in affiliated main course. Additional work in Portuguese to augment work assigned in main course, including reading and writing assignments. May be repeated. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course to explore topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. P/NP or letter grading.

191. Undergraduate Variable Topics Seminars: Portuguese. (4) Seminar, three hours. Requisite: course 25 or 26 or 27. Research seminar on selected topics in Portuguese, Brazilian, and Lusophone Studies. Development of culminating project. Consult Schedule of Classes or department counselor for topic to be offered in specific term. May be repeated for credit. P/NP or letter grading.

195. Community Internships in Portuguese. (4) Tutorial, two hours; fieldwork, eight hours. Requisite: course 25 or 26 or 27. Limited to juniors/seniors. Community-engaged learning is teaching and learning strategy that integrates meaningful community service
with instruction and critical reflection to enrich the learning experience, teach civic responsibility, and strengthen communities. Students use cultural and linguistic immersion in real-world settings at least 8-10 hours per week in volunteer work in on- or off-campus organizations or service-learning projects. Students may be required to complete at least 80 hours of volunteer work in one or more organizations.

198A–198B. Senior Honors Research in Portuguese. (4–4) Tutorial, to be arranged. Individual intensive study, with scheduled meetings, to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. Eight units of courses 197 and/or 199 may be applied toward major requirements. Individual contract required. P/NP or letter grading.

199. Directed Research in Portuguese. (2 to 4) Tutorial, to be arranged. Preparation: apprentice period of one academic quarter. May be repeated for credit with topic change. S/U or letter grading.


201A–201B. Development of Portuguese and Old Spanish. (4–4) Same as Spanish M205A–M205B. Study in Galician-Portuguese and Old Spanish. (4–4) Same as Spanish M251A–M251B. Lecture, two hours. Study of problems related to historical development of Galician-Portuguese and Old Spanish. Each course may be repeated once with topic change and consent of appropriate guidance committee.

202. Synchronic Morphology and Phonology. (4) Lecture, three hours. Study of representative trends and authors. May be repeated for credit with topic change. S/U or letter grading.

203. 19th-Century Brazilian Literature and Culture. (4) Lecture, three hours. Enforced requisite: course 27. Study of representative trends and authors. May be repeated for credit with topic change. S/U or letter grading.


205. 19th-Century Portuguese Literature. (4) Lecture, three hours. Enforced requisite: course 27. Study of representative trends and authors. May be repeated for credit with topic change. S/U or letter grading.


258. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprenticing for one year. May be repeated for credit. S/U or letter grading.


296. Graduate Research Group. (2) Lecture, three hours. Enforced requisite: course 27. Organized by topics, may be repeated for credit. S/U or letter grading.

301. Intermediate Spanish. (4) Lecture, three hours. Enforced requisite: course 1G. May be repeated for credit. S/U or letter grading.

302. Synchronic Morphology and Phonology. (4) Lecture, three hours. Enforced requisite: course 27. Study of representative trends and authors. May be repeated for credit with topic change. S/U or letter grading.


Spanish Lower-Division Courses

1. Elementary Spanish. (4) Lecture, three hours; labaratory, two hours. Taught in Spanish. Laboratory is on-line. Introductory Spanish language and culture course that is proficiency-oriented, communicative, and task-based to help develop communicative competence in four skill areas (listening, speaking, reading, and writing), as well as cultural competence. P/NP or letter grading.

2. Elementary Spanish. (4) Lecture, three hours; laboratory, two hours. Taught in Spanish. Laboratory is on-line. Introductory Spanish language and culture course that is proficiency-oriented, communicative, and task-based to help develop communicative competence in four skill areas (listening, speaking, reading, and writing), as well as cultural competence. P/NP or letter grading.

3. Intermediate Spanish. (4) Lecture, three hours; laboratory, two hours. Taught in Spanish. Laboratory is on-line. Introductory Spanish language and culture course that is proficiency-oriented, communicative, and task-based to help develop communicative competence in four skill areas (listening, speaking, reading, and writing), as well as cultural competence. P/NP or letter grading.

4. Intermediate Spanish. (4) Lecture, three hours; laboratory, two hours. Taught in Spanish. Laboratory is on-line. Intermediate Spanish language and culture course designed to increase communicative ability. Acquisition of cultural competence and introduction to study of literature. Comprehension of conversations and stretches of connected discourse, reading of texts with minimum use of dictionary, writing with increased grammatical accuracy and control of sentence structure, coherence, and text organization, talking about past, present, and future events, and expression of preferences, feelings, beliefs, and opinions. P/NP or letter grading.

5. Intermediate Spanish. (4) Lecture, three hours; laboratory, two hours. Taught in Spanish. Laboratory is online. Intermediate Spanish language and culture course designed to increase communicative ability. Acquisition of cultural competence and introduction to study of literature. Comprehension of conversations and stretches of connected discourse, reading of texts with minimum use of dictionary, writing with increased grammatical accuracy and control of sentence structure, coherence, and text organization, talking about past, present, and future events, and expression of preferences, feelings, beliefs, and opinions. P/NP or letter grading.

6. Introductory Spanish for Heritage Speakers. (4) Lecture, three hours; laboratory, two hours. Labora-

written, and to increase knowledge of grammatical structures and achieve communicative competence. P/NP or letter grading.

7B. Intermediate Spanish for Heritage Speakers. (4) Lecture, three hours; laboratory, two hours; P/NP or letter grading. Second-year course for speakers who are native or near-native in Spanish. Prerequisite: 3 or 7A or Spanish placement test. Laboratory is online. Designed for students who are from Spanish-speaking family background and have some knowledge of Spanish. Intermediate course to further develop communicative abilities, both verbal and written, and to increase knowledge of grammatical structures and achieve communicative competence. P/NP or letter grading.

9A-9B. Spanish Conversation. (2-3) Discussion, three hours. Course 8A is open to students with credit for course 4. Students who have completed course 3 with grade of B or better may be admitted. P/NP or letter grading.


10. Intensive Elementary Spanish. (12) Lecture, 20 hours. Intensive elementary instruction in speaking, listening, reading, and writing equivalent to courses 1, 2, and 3, with emphasis on Spanish grammar and Hispanic culture. Offered in summer only. P/NP or letter grading.

11A. Catalan Language and Culture I. (4) Lecture, six hours. Part one of two-term accelerated language sequence equivalent to three terms of traditional instruction. Introduction to Catalan language and culture from a variety of perspectives: historical, social, and communicative approaches. Study involves variety of activities, which are designed to develop learners' listening, reading, speaking, and writing skills. P/NP or letter grading.

11B. Catalan Language and Culture II. (4) Lecture, six hours. Prerequisite: course 11A or equivalent. Part two of two-term accelerated language sequence equivalent to three terms of traditional instruction. Study of specific works of literature and historical knowledge of Catalan language and culture from wide range of activities focused on task-based and communicative approaches. Study involves variety of activities, which are designed to develop learners' listening, reading, speaking, and writing skills. P/NP or letter grading.

12A-12B-12C. Basque Language and Culture I, II, III. (4-4-4) Lecture, five hours. Introduction to Basque language and culture from a variety of perspectives: historical, social, and communicative approaches. Study involves variety of activities, which are designed to develop learners' listening, reading, speaking, and writing skills. P/NP or letter grading.

19. fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of philosophical and ethical topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

25. Advanced Spanish Composition. (4) Lecture, three hours. Prerequisite: course 5. Emphasis on development of communicative abilities, both verbal and written, as well as on increased comprehension of variety of forms of cultural production in Spanish language and on preparation for more advanced Spanish courses. P/NP or letter grading.

27. Advanced Spanish Composition for Heritage Speakers. (4) Lecture, three hours. Prerequisite: course 5. Practice in reading and writing of Spanish for students with oral proficiency in Spanish (in lieu of course 25). P/NP or letter grading.

28A. Spanish for Special Purposes: Medical. (4) Lecture, three hours. Prerequisite: course 3. Practice in speaking with native speakers of Spanish to improve vocabulary and cultural situations for students with special interest in fields such as medicine, business, law, etc. P/NP or letter grading.

28B. Spanish for Special Purposes: Business. (4) Lecture, three hours. Recommended prerequisite: course 3. Introduction to Spanish language and its diverse cultures in variety of business settings. Offers opportunities to practice simple language that may be useful in airports, hotels, restaurants, and informal and professional settings where Spanish is target language. P/NP or letter grading.

M35. Spanish, Portuguese, and Nature of Language. (5) (Same as Portuguese M35). Lecture, three hours; discussion, one hour. Introduction to language study and advanced context of Romance languages, focusing on Spanish and Portuguese. Nature of language: structure, diversity, evolution, social and cultural settings, literary uses. Study of language and its relation to other areas of human knowledge. P/NP or letter grading.

42. Iberian Cultures. (5) Lecture, four hours; discussion, one hour. Required of majors. Lectures taught in English; discussion sections taught in either Spanish or English. High-level study of Spain with emphasis on artistic, economic, social, and historical development as background for upper-division courses. P/NP or letter grading.

44. Latin American Cultures. (5) Lecture, four hours; discussion, one hour. Required of majors. Lectures taught in English; discussion sections taught in either Spanish or English. Highlights of civilization of Spanish America, with emphasis on artistic, economic, social, and historical development as background for upper-division courses. P/NP or letter grading.

60A-60B-60C. Hispanic Literatures in Translation. (4-4-4) Lecture, three hours. Class readings and analysis of selected works in translation. Classroom discussion, papers, and examinations in English. 60A. Spanish Literature; 60B. Spanish-American Literature; 60C. Luso-Brazilian Literature (same as Portuguese M122). Lecture, four hours. Prerequisite: course 25 or 27 or Portuguese 25 or 26 or 27. Taught in English. Addresses specificities of visual culture in Spanish- and Portuguese-speaking worlds. Through critical engagement with wide range of visual materials—from 16th-century maps of Americas to YouTube videos of street protests in Chile; from Modernist architectural designs for new national capitals to tele-novelas and colonial photographs; and everything in between—introduction to practices, processes, objects of study, and interdisciplinary critical frameworks of visual cultural studies. By examining manifestations of visual culture from Iberian, Latin American, and Luso-Brazilian contexts, students gain culturally specific foundations of visual knowledge and skills of visual literacy. P/NP or letter grading.


120. Literature in Historical Context. (4) Lecture, four hours; discussion, one hour. Requisite: course 25 or 27. Introduction to different ways of looking at literary work as historico-cultural. Exploration of major models for writing history—great narratives, cyclic, teleological, sacred, and profane conceptions. Traditional concepts of literary history and problems of mixed categories (historicizing aspects of style, national history, and world literature). P/NP or letter grading.

M122. Foundations in Visual Culture in Iberian, Latin American, and Luso-Brazilian contexts, students gain culturally specific foundations of visual knowledge and skills of visual literacy. P/NP or letter grading.

130. Topics in Medieval Studies. (4) Lecture, four hours. Requisites: courses 25 or 27, and 119. Exploration of medieval Iberian literatures: lyric poetry, prose, and history of the peninsula, with emphasis on its literary and linguistic diversity. Portuguese literature. Convi-vencia (peaceful coexistence), Europe and Orient, beginnings of Inquisition, oral versus written traditions, origins of Hispanic-Christian expansion beyond peninsula, and flowering of AfL. May be repeated for credit with topic change. P/NP or letter grading.

135. Topics in Early Modern Studies. (4) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: courses 25 or 27, and 119. Exploration of 16th and 17th centuries, with focus on early modern period of Spain and Spanish America. Possible topics include Spanish colonization and indigenous responses, transatlantic literary and visual ba-roque, race and religion in construction of early modern nation, transcultural fictions, early modern identities and theatrical representations, literature and historiography, transcannic poetics and poetry. May be repeated for credit with topic change. P/NP or letter grading.

140. Topics in Modern Studies. (4) Lecture, four hours. Requisites: courses 25 or 27, and 119. Exploration of major modern movements in Spain and 19th and 20th centuries in Spain and Spanish America. Possible topics include Enlightenment, Romanticism, nation-building literature, realism and naturalism, and works by Calvo-Sotelo, Concorde, Garmiento, Bécquer, Isacca, Mera, Villaverde, and Galdós. May be repeated for credit with topic change. P/NP or letter grading.

150. Topics in Contemporary Studies. (4) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 25 or 27, and 119. Exploration of main trends that characterize contemporary Latin American and Spanish literatures and cultures and main concepts used to address them. Possible topics
include transculturation and heterogeneity, race and ethnicity, vanguard movements, lettered and popular cultures, literary modernization in Latin American boom, literature, and mass production; autobiography, women’s writing, border literature, and postmodern fiction. May be repeated for credit with topic change. P/NP or letter grading.


160. Topics in Spanish Linguistics. (4) Lecture, four hours. Required course 25 or 27. Exploration of origin of language, how Spanish is acquired, evolution of Spanish from Latin to early modern period, how Spanish varies in world, how to teach Spanish, Spanish in contact with other languages. Possible topics include Spanish in Los Angeles, history of language, first- and second-language acquisition, language and cognition. May be repeated for credit with topic change. P/NP or letter grading. M165XP. Taking It to Street: Spanish in Community. (5) (Formerly numbered M165SL.) (Same as Chicana/o and Central American Studies M167XP) Seminar, three hours. Enforced requisite: course 25 or 27. Service learning course to give students opportunity to use cultural and linguistic knowledge acquired in Spanish classes in real-world settings. Students required to spend minimum of eight to 10 hours per week at agreed on site in Latino community. P/NP or letter grading.

170. Topics in Interdisciplinary and Transhistorical Studies. (4) Lecture, four hours; discussion, one hour (when scheduled). Required course 25 or 27, 119. Comparative study of cultural production in Latin American, Afro-Luso-Brazilian, and Iberian contexts across diverse historical periods, regional, and ethnic traditions, and aesthetic modes. Possible topics include Afrolatinidad; diaspora; feminism; folklore; gender; globalization; indigeneity and indigenous studies (Andean, Mesoamerican, Amazonian, Tupi, and Tapu); migration; music (including Latin American protest songs, nueva canción, música regional, punk, rap, folk); popular culture; regionalisms. May be repeated for credit with topic change. P/NP or letter grading. M172XP. Topics in Community Engagement. (5) (Formerly numbered M172SL.) (Same as Chicana/o and Central American Studies M170XP) Seminar, four hours; field project, four to six hours. Required course 25 or 27. Introduction to community engagement in various forms. Exploration of methods of community involvement and change making processes within variety of professional contexts in community. Students engage in experiential research, service, and/or learning to broaden their understanding of Spanish-speaking and Latinx communities. Students have opportunity to use cultural and linguistic knowledge acquired in Spanish classes in a community setting. Topics may include oral tradition, immigrant narratives, visual culture and community, language and identity in community, urban spaces, etc. May be repeated for credit with topic change. P/NP or letter grading.

175. Topics in Creative Writing and Translation. (4) Seminar, three hours. Required courses: courses 25 or 27, and 119. Exploration of art of translation or creative writing. Guest instructors include professional literary translators, poets, novelists, playwrights, and filmmakers who discuss theory, methodology, and practice of their art. May be repeated for credit with topic change. P/NP or letter grading.

180. Variable Topics in Visual Cultures. (4) Formerly numbered M180.) Lecture, four hours; discussion, one hour (when scheduled). Required: courses 25 or 27, 119. Study of visual knowledge production in Latin America and Iberia as complex relation between visual subjects, practices, and representation. Objects of analysis may include architecture and urban design, digital media and other technologies, documentaries, fashion, video games, feature films, graphic novels and other media, maps and cartography, photography, plastic arts and art history, theater and performance, video, among others. May be repeated four times for credit with topic change. P/NP or letter grading.

187A-187B. Advanced Tutorial in Community and Culture I, II. (1–2) Tutorial, one hour. Required: course 25 or 27. Designed as adjunct to upper-division courses in culture and community. Exploration of topics in greater depth through supplemental readings, papers, community service, or other activities. Course 187A may be repeated once for credit. P/NP or letter grading.

189. Advanced Honors Seminars, (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grade required.

191A. Variable Topics in Spanish: Studies in Hispanic Literature and Linguistics, (4) Seminar, three hours. Limited to 15 junior/senior Spanish majors. Variable topics course with readings, discussions, and development of culminating paper. Consult Schedule of Classes or department counselor for topic to be offered in specific term. May be repeated for credit with topic change. P/NP or letter grading.

191B. Variable Topics in Spanish: Studies in Hispanic Culture and Civilization. (4) Seminar, three hours. Advanced variable topics course that studies diverse aspects of Hispanic culture, civilization, and history. Classroom discussions, development of culminating paper, and examinations in Spanish. May be repeated for credit with topic change. P/NP or letter grading.

191C. Senior Capstone Seminar. (4) Seminar, three hours. Enforced requisite courses: courses 119, 120, and at least three upper-division elective courses required for majors. Limited to 15 junior/senior majors. Knowledge from previous coursework used to address current trends in discipline; students work with one faculty member on one focused research topic. Culminating paper required. Letter grade required.

195. Community Internships in Spanish. (4) Tutorial, one hour; fieldwork, 10 hours. Required: course 25 or 27. Limited to juniors/seniors. Internship in supervised setting in community agency or business. Students meet on regular basis with instructor and provide journal of their experience. Final research paper required. May be repeated for credit. Individual contract with supervising faculty member required. P/NP or letter grading.

197. Individual Studies in Spanish. (2 to 4) Tutorial, to be arranged. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. Eight units of courses 197 and/or 199 may be applied toward major requirements. May be repeated for maximum of 48 units. Individual contract required. P/NP or letter grading.

198A-198B. Senior Honors Research in Spanish in II, (4–2) Tutorial, to be arranged. Preparation: completion of minimum of six upper-division major core courses with gpa of 3.5. Course 198A is enforced requisite to 198B. Limited to juniors/seniors. Development and completion of honors thesis under direct supervision of faculty member. May not be applied toward major requirements. Individual contract required. Letter grading.

199. Directed Research in Spanish. (2 to 4) Tutorial, to be arranged. Required: course 25. Limited to juniors/seniors. Supervised individual research under guidance of faculty mentor. Culminating paper required. Eight units of courses 197 and/or 199 may be applied toward major requirements. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

M200. Research Resources, (4) (Same as Portuguese M200.) Lecture, three hours. Identification and use of research resources for graduate students. M201A-M201B. Literary Theory and Criticism. (4–4) (Same as Portuguese M201A-M201B.) Lecture, three hours. Definition, discussion, and application of main currents of contemporary literary theory and criticism. Letter grading.


209. Dialectology, (4) Lecture, three hours. Major dialect areas of peninsular and American Spanish, with distinguishing features of each. Influence and contribution of cultural and historical features, including diglossic languages, to their formation.

211. Medieval Lyric Poetry, (4) Lecture, three hours. Readings of and lectures on Spanish lyric poetry from the beginning to 1500. 212. Medieval Epic and Narrative Poetry, (4) Lecture, three hours. Readings of and lectures on Spanish epic and narrative poetry from the beginning to 1500. 213. Medieval Prose, (4) Lecture, three hours. Readings and lectures on Spanish prose from the beginning to 1500.


218. Realism and Naturalism, (4) Lecture, three hours. Readings of and lectures on realistic and naturalistic literature.

219. Major Currents in Modern Spanish Literature, (4) Lecture, three hours. Introduction to major literary currents, including symbolism, Parnassianism, and the Generation of 1898.

220. Spanish Prose Literature from 1888 to the Civil War, (4) Lecture, three hours. Readings of and lectures on representative essays, novels, and short stories of the period.
233. Spanish Prose Literature after the Civil War. (4) Lecture, three hours. Readings of and lectures on representative plays and poems.

234. Spanish Drama and Poetry after the Civil War. (4) Lecture, three hours. Readings of and lectures on representative plays and poems.

237. Literature of the Spanish Conquest. (4) Lecture, three hours. Readings of and lectures on chronicles, poems, and indigenous accounts of the Spanish Conquest.


241A-241B. Contemporary Spanish-American Short Story. (4–4) Lecture, three hours. Study of important short story writers from modernism to the present.

243A-243B. Contemporary Spanish-American Poetry. (4–4) Lecture, three hours. Intensive study of important poets of Spanish America from modernism to the present.

244A-244B. Contemporary Spanish-American Novels. (4–4) Lecture, three hours. Study of important novelists from modernism to the present.


M251A-M251B. Studies in Galician-Portuguese and Old Spanish. (4–4) Same as Portuguese M251A-M251B.) Lecture, two hours. Study of problems related to development of Galician-Portuguese and Old Spanish. Each course may be repeated once with topic change and consent of appropriate guidance committee.

256A-256B. Studies in Spanish Linguistics. (4) Lecture, two hours. Study of problems in analysis and description of the contemporary Spanish language. Each course may be repeated once with topic change and consent of appropriate guidance committee.

257. Studies in Dialectology. (4) Discussion, two hours. May be repeated once with topic change and consent of appropriate guidance committee.

262A-262B. Studies in Medieval Spanish Literature. (4–4) Discussion, two hours. Each course may be repeated once with topic change and consent of appropriate guidance committee.

264A-264B. Studies in Golden Age Spanish Literature. (4–4) Discussion, two hours. Each course may be repeated once with topic change and consent of appropriate guidance committee.

265. Cervantes. (4) Discussion, two hours. May be repeated once with topic change and consent of appropriate guidance committee.

270A-270B. Studies in 18th-Century Spanish Literature. (4–4) Discussion, two hours. Each course may be repeated once with topic change and consent of appropriate guidance committee.

271A-271B. Studies in 19th-Century Spanish Literature. (4–4) Discussion, two hours. Each course may be repeated once with topic change and consent of appropriate guidance committee.
The Department of Statistics and Data Science is devoted to furthering the science of data, and faculty research focuses on statistical and machine learning, computational statistics, computational biology, social statistics, and environmetrics. Both the undergraduate and graduate programs immerse students in theory, application, and computation—the foundations of data science.

Centers
Reflecting diverse research interests, the department is organized around several centers that collectively offer undergraduate and graduate students rich opportunities for specialized study. These include the Center for Environmental Statistics; Center for Social Statistics; Center for Statistical Research in Computational Biology; and Data Science Education Center.

Undergraduate Majors

Statistics and Data Science
BS
The Statistics and Data Science major is designed to provide a general introduction to the practice of statistics for students who intend to pursue study at the graduate level or seek employment in industry or government. Courses are selected to provide sufficient theoretical background for future graduate-level research work, exposure to modern techniques and practices, and experience in fields of application.

It is strongly recommended that students, in conjunction with the BS degree, pursue a minor in a substantive discipline that applies statistics. Students must consult with the undergraduate faculty adviser to ensure that the minor selected is one in which statistics is applied.

Students interested in the major in Statistics and Data Science should meet with the student affairs officer early in their careers. Students who have completed Mathematics 33A, Statistics 20, and at least one course from Statistics 10 through 13 may declare a pre-major.

Capstone Major
The Statistics and Data Science major is a designated capstone major. Students are prepared for future academic studies, as well as for careers in which understanding, analyzing, communicating, and organizing data are of central importance. The capstone gives students an opportunity to put into practice concepts and ideas that otherwise might remain theoretical and/or abstract, and to synthesize the many topics they have studied. Students should demonstrate ability to restate investigative questions in terms of statistical models or algorithms, find appropriate research literature to support their work, relate theoretical concepts to real-world problems, and clearly communicate their results to nontechnical audiences.

Learning Outcomes
The Statistics and Data Science major has the following learning outcomes:

• Ability to restate an investigative question in terms of a statistical model or algorithm
• Verbally communicate statistical results clearly to a non-technical audience
• Successfully relate theoretical concepts to a real-world problem in a written report
• Demonstrated ability to find research literature appropriate to the investigative task
• Deliver reproducible statistical analyses using accepted practices of the research community
• Demonstrated ability to verbally and orally communicate statistical results to both technical and nontechnical audiences

Entry to the Major
Pre-major
Incoming first-year and transfer students may be admitted as Statistics and Data Science pre-majors on acceptance to UCLA. Pre-major students must apply for the major after completing Statistics 20, and one course from Statistics 10 through 15, with grades of C or better, and an overall grade-point average of 2.5. Any student who meets the pre-major requirements may declare the major with the undergraduate student services adviser through Message Center.

First-Year Students
Students who entered as first years must declare the major with the undergraduate adviser no later than the end of the fall quarter of their junior year.

Transfer Students
Transfer applicants to the Statistics and Data Science major with 90 or more units must complete as many of the following introductory courses as possible prior to admission: two years of calculus, one linear algebra course, and one statistics course. These courses must be completed with a minimum grade-point average of 2.5. Students must declare the major with the department undergraduate adviser no later than the end of the fall quarter of their junior year.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Requirements
Preparation for the Major

The Major
Required: Statistics 100A, 100B, 100C, 101A, 101B, 101C, 102A, 102B, 102C; two capstone statistical consulting courses (140XP, 141XP); and two upper-division elective courses selected from Mathematics 131A, 131B, 151A, 151B, 170B, 171, or Statistics 112 through 199 (except courses 147, M148, 184, 186).

Policies
Preparation for the Major
Each course must be completed with a grade of C or better, and a grade-point average of 2.5 or higher. Students who repeat more than two of the preparation courses or who repeat any preparation course more than once are automatically denied admission to the major.

The Major
Students are strongly encouraged to take electives in departments other than statistics, particularly in mathematics, computer science, and substantive disciplines that apply statistical methods. Elective courses from outside the department may be selected in consultation with the department director of undergraduate education.

The capstone consists of two courses (Statistics 140XP and 141XP) that must be completed sequentially in the final year. Students must first complete courses 100B and 101B before they can begin the capstone.

Students planning to continue their study of statistics at the graduate level are strongly advised to include in their schedule as many of the following courses as possible: Mathematics 115A, 115B, 131A, 131B, 151A, 151B, 170B, 171.

Only 4 units of Statistics 195 and 199 may be applied toward the major. Courses 189 and 189HC may not be applied toward any of the major requirements.
Each major course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better.

**Data Theory BS**

**Capstone Major**
The Data Theory major is a designated capstone major. Students work in small teams to solve a large, open-ended data science problem for community- or campus-based clients. Emphasis is placed on the development and theoretical support of a statistical model or algorithmic approach. Alternatively, students may undertake research on the foundations of data science, studying advanced topics and writing a senior thesis.

**Learning Outcomes**
The Data Theory major has the following learning outcomes:

- Understanding of mathematical and statistical bases of most common methods of data science
- Ability to explain in writing, with examples, how concepts of statistics and mathematics together solve real-world problems involving data
- Skillfully manage data
- Development, comparison, and testing of data-driven models to solve problems
- Understanding and explanation of variability when fitting and interpreting models of real-world systems
- Carrying out of reproducible data analysis using accepted practices of research community
- Written and verbal communication of findings of analyses
- Identification of areas of active research in data science
- Insightfully address problems concerning ethics of data use and storage, including data privacy and security
- Demonstrated mastery of concepts and skills of machine learning, modeling and supervised learning, dimension reduction and unsupervised learning, and deep learning
- Demonstrated familiarity with numerous software tools used in statistical and data science work and research
- Demonstrated knowledge of mathematical foundations, including pure and applied linear algebra, basic analysis, probability, and optimization theory
- Study and evaluation of proofs of mathematical and statistical results employed in data theory
- Work effectively in a team on a data science problem
- Demonstrated eligibility for graduate study in applied mathematical science or statistical science

**Entry to the Major**

**Pre-major**

Students entering UCLA directly from high school or first-term transfer students who want to declare the Data Theory pre-major at the time they apply for admission are automatically admitted to the pre-major. Students must visit the student services office of either the Mathematics Department or Statistics and Data Science Department in order to petition to enter the major. All students are identified as Data Theory pre-majors until they satisfy the following minimum requirements for the major.

**First-Year Students**

To enter the major, students must petition after they have completed the preparation for the major courses. Students who have an overall grade-point average (GPA) of at least 3.3 in the preparation for the major courses, and have completed all preparation for the major courses before the fall quarter of their third year at UCLA, will be admitted to the major.

Students whose overall GPA is between 2.7 and 3.3, or who fail to complete the preparation courses before the fall quarter of their third year, are admitted only if space is available. All students must petition before they have earned 160 units, or by the winter quarter of their junior year, whichever comes first. Only grades for courses that are taken at the University of California, including UC summer schools, are counted for this GPA computation.

**Transfer Students**

Transfer applicants to the Data Theory major are admitted to the pre-major. Applicants with 90 or more units must have completed the following by the end of the spring term prior to entry to UCLA: two years of calculus for physical science and/or engineering majors, one linear algebra course, one C++ programming course, one statistics course.

Transfer students must have completed all preparation for the major coursework, and must have passed Mathematics 42, 115A, and at least 4 units of upper-division coursework required for this major with at least a 3.3 GPA, in order to be eligible to petition to enter the major. Transfer students will be admitted to the major if they satisfy these requirements. Transfer students who fail to meet these criteria for automatic admission will be admitted only if resources allow. Transfer students must petition to enter the major no later than the spring quarter of their third year.

Refer to the **UCLA transfer admission guide** for up-to-date information regarding transfer selection for admission.

After satisfying the preparation for the major requirements, students must visit the student services office of either the Mathematics Department or Statistics and Data Science Department in order to petition to enter the major.

**Requirements**

**Preparation for the Major**

Required: Mathematics 31A, 31B, 32A, 32B, 33A, 42, 115A; Program in Computing 10A; one course selected from Statistics 10, 12, 13, 15; Statistics 20, 21.

**The Major**

Required: Mathematics 118, 131A, 156, Statistics 101A, 101C, 102A, 102B, 147, 184; one two-quarter sequence: Mathematics 170E and 170S, or Statistics 100A and 100B; one elective selected from Mathematics 151A, 151B, 164, 168, 171, 174E, 178A, 178B, 178C, 179 or 182; one elective selected from Statistics 100C, 101B, 102C, or C151 through 199 (except Statistics 182, 186, or 189); two additional electives from either of the above lists; a capstone course (Mathematics M148 or Statistics M148), to be taken during the final year.

**Policies**

**Preparation for the Major**

Each course must be completed with a grade of C or better and an overall grade-point average of at least 2.7. All students must take Mathematics 42 at UCLA. The major is limited in size according to available resources.

**Repetition of more than two mathematics or statistics sequenced courses or of any mathematics or statistics sequenced course more than once results in automatic dismissal from the major.**

**The Major**

Only 4 units of course 199 may be applied toward the major. Courses 189 and 189HC may not be applied toward any of the major requirements.

Each major course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better.

**Undergraduate Minors**

**Social Data Science Minor**

The Social Data Science minor is designed to offer a solid background in data science for students majoring in social science disciplines. It is restricted to students who are declared majors within the Social Sciences Division.

**Admission**

To enter the minor, students (1) must have completed the required lower-division courses for letter grades with a minimum C or better grade in each course, and a grade-point average of 2.5 or better in lower-division courses; and (2) file a petition with the Statistics and Data Science Department undergraduate adviser.

**The Minor**

**Required Lower-Division Courses (12 or 13 units):** Mathematics 33A, Statistics 20, and one course from Economics 41, Geography 7, Political Science 6, Sociology 20, or Statistics 10 through 15.

Graduate Majors
Master of Applied Statistics and Data Science

Requirements
Official, specific degree requirements are detailed in *program requirements for UCLA graduate degrees*, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Statistics MS, CPhil, PhD

Requirements
Official, specific degree requirements are detailed in *program requirements for UCLA graduate degrees*, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Statistics Lower-Division Courses

10. Introduction to Statistical Reasoning. (5) Lecture, three hours; discussion, one hour. P/NP or letter grading.
11. Introduction to Statistical Methods for Geographical Data. (5) Lecture, three hours; discussion, one hour. P/NP or letter grading.
12. Introduction to Statistical Methods for Geographical and Environmental Studies. (5) Lecture, four hours; discussion, one hour. P/NP or letter grading.
13. Introduction to Statistical Methods for Life and Health Sciences. (5) Lecture, three hours; discussion, one hour; laboratory, one hour. P/NP or letter grading.
14. Introduction to Data Science. (5) Lecture, three hours; discussion, one hour; computer laboratory, one hour. P/NP or letter grading.

Upper-Division Courses

100A. Introduction to Probability. (4) Lecture, three hours; discussion, one hour. Requisites: Mathematics 32B, 33A. Not open to students with credit for Electrical Engineering 131A or Mathematics 170A; open to graduate students. Students may receive credit for only two of the following: course 100A, former course 110A, Biostatistics 100A. Probability distributions, random variables, vectors, and expectation. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of research, stimulating many paths of discovery at UCLA. P/NP grading.
20. Introduction to Statistical Programming with R. (4) Lecture, three hours; discussion, one hour. Enforced requisite: one course from course 10, 12, 13, 15, Economics 41, or Psychology 100A, or score of 4 or higher on Advanced Placement Statistics Examination. Designed to prepare students for upper-division work in statistics. Introduction to use of R, including data management, simple programming, and statistical graphics in R. P/NP or letter grading.
21. Python and Other Technologies for Data Science. (4) Lecture, three hours; discussion, one hour. Enforced requisite: course 20. Covers use of Python and other technologies for data analysis and data science. Focus on programming with Python and selection of its libraries: NumPy, pandas, matplotlib, and scikit-learn, for purpose of data processing, data cleaning, data analysis, and machine learning. Other technologies covered include Jupyter notebook and Git. Intended for Data Theory majors as introduction to Python language and libraries most frequently used in data science. Letter grade.
35. Introduction to Probability with Applications to Poker. (4) Lecture, three hours; discussion, one hour. Exploration of some main topics in introductory probability theory, especially discrete probability problems, that are useful in wide variety of scientific applications. Topics include conditional probability and conditional expectation, combinatorics, laws of large numbers, central limit theorem, Bayes theorem, univariate distributions, Markov processes, and Brownian motion. Examination of computer simulation in depth and discussion of computational approximations of solutions to complex problems using R, with examples of situations and concepts that arise naturally when playing Texas Hold’em and other games. P/NP or letter grading.
88. Sophomore Seminars: Statistics. (2) Seminar, two hours. Requisites: one course from 10, 11, 12, 13, or 14. Limited to 20 lower-division students. Readings and discussions designed to introduce students to current statistical consulting research and fieldwork disciplines. Culminating project may be required. P/NP or letter grading.
89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.
89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grade.
99. Student Research Program. (0 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Policies

Statistics 105, 188SA, 188SB, 188SC, 189, 189H-C, 195, and 199 may not be applied toward the minor. Elective courses from outside the department are selected in consultation with the Statistics and Data Science undergraduate faculty adviser. The variable topics courses Political Science 179 and 191E and Sociology 191V may only be applied toward the minor by special petition on the basis of their statistical content.
Economics 104 may be used as a substitute for Statistics 101A as a requisite for Statistics 101B.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Statistics and Data Science Minor

The Statistics and Data Science minor is designed to provide a solid background in statistics for students majoring in other disciplines.

Students interested in the minor in Statistics and Data Science should meet with the student affairs officer early in their careers. Students who have completed Mathematics 33A, Statistics 20, and at least one course from Statistics 10 through 15 may declare the minor.

Admission

To enter the minor, students (1) must have taken Mathematics 33A, Statistics 20, and one course from Statistics 10 through 15 for letter grades with a minimum C or better grade in each and a grade-point average of 2.5, and (2) file a petition with the department undergraduate adviser.

The Minor

Required Upper-Division Courses (24 units): Six upper-division courses selected from one of the following options: (1) Statistics 100A, 100B, and 100C, and Statistics 101A, 101B, and 101C, or Statistics 102A, 102B, and 102C, or (2) Statistics 100A, 100B, 101A, 101B, 102A, and 102B or 102C.

Policies

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.
100B. Introduction to Mathematical Statistics. (4) Lecture, three hours; discussion, one hour. Requisite: course 100A or Mathematics 170A or 170E. Survey sampling methods and models; one- and two-sample problems. P/NP or letter grading.

100C. Linear Models. (4) Lecture, three hours; discussion, one hour. Enforced requisite: course 100B or Mathematics 170S. Theory of linear models, with emphasis on general linear model (e.g., multiple regression) and generalized linear model (e.g., logistic regression). Special attention to modern extensions of regression, including re- gression diagnostics, graphical procedures, and bootstrap techniques for statistical inference. P/NP or letter grading.

101A. Introduction to Data Analysis and Regression. (4) Lecture, three hours; discussion, one hour. Requisite: one course from 10, 12, 13, 15, Economics 41, or Psychology 100A, or score of 4 or higher on Advanced Placement Statistics Examination, and course 20. Recommended: course 102A. Applied regression analysis, with emphasis on general linear model (e.g., multiple regression) and generalized linear model (e.g., logistic regression). Special attention to modern extensions of regression, including regression diagnostics, graphical procedures, and bootstrapping techniques for statistical inference. P/NP or letter grading.

101B. Introduction to Design and Analysis of Experiments. (4) Lecture, three hours; discussion, one hour. Enforced requisite: course 101A. Fundamentals of designing and analyzing experiments. Topics include model fitting, extra sums of squares principle, testing general linear hypothesis, testing general linear regression, stepwise procedures. P/NP or letter grading.

112. Statistics: Window to Understanding Diversity. 18 a.m. Reading. Topic: Presenting a scientific laboratory. one hour. Requisite: one course from course 10, 12, 13, Economics 11, 41, or Psychology 100A, or score of 4 or higher on Advanced Placement Statistics Examination as well as one course from 100A. Fundamental concepts of statistical methods in social sciences, including regression, multivariate techniques, logistic regression, and data-handling and analysis. Applications to social sciences, using professional analysis software package for data analysis. Letter grading.


C116. Social Statistics. (4) Lecture, three hours. Preparation: some knowledge of basic calculus and linear algebra. Recommended: courses 100B, 101B, and 101C, or one course from 10, 11, 12, 13 and one upper-division statistics course using regression. Designed for social sciences graduate students and advanced undergraduate students seeking training in data analysis and interpretation in social sciences. Concurrently scheduled with course C216. P/NP or letter grading.

120. Getting Up to Speed with SPSS, Stata, SAS, and R. (4) Lecture, three hours. Requisite: course 101B. Designers for junior and seniors, Applied regression analysis, with emphasis on general linear model (e.g., multiple regression) and generalized linear model (e.g., logistic regression). Special attention to modern extensions of regression, including regression diagnostics, graphical procedures, and bootstrapping techniques for statistical inference. P/NP or letter grading.

120C. Introduction to Statistical Models and Data Mining. (4) Lecture, three hours; discussion, one hour. Enforced requisite: course 101A. Recommended: course 101B. Designers for junior and seniors. Applied regression analysis, emphasis on general linear model (e.g., multiple regression) and generalized linear model (e.g., logistic regression). Special attention to modern extensions of regression, including regression diagnostics, graphical procedures, and bootstrapping techniques for statistical inference. P/NP or letter grading.

120A. Introduction to Computational Statistics with R. (4) Lecture, three hours; discussion, one hour. Requisites: course 101B, Mathematics 33A, and one course from 10, 12, 13, Economics 11, 41, or Psychology 100A, or score of 4 or higher on Advanced Placement Statistics Examination. Introduction to computational statistics through numerical methods, and computationally intensive methods for statistical problems. Topics include statistical graphics, root finding, simulation, randomization testing, and bootstrap techniques for statistical inference and data analysis. Use of computer for analysis of large-scale data. P/NP or letter grading.

131. Python and Other Technologies for Data Analysis. (4) Lecture, three hours; discussion, one hour. Requisite: course 102A. Limited to junior/senior statistics majors. Introduction to Python, R, and other languages for data analysis and scientific computing. Study of some commonly employed solutions—SPSS (Statistical Package for Social Sciences), Stata, SAS (Statistical Analysis System), and R—for data analysis and statistical issues in health sciences, engineering, economics, and government. Emphasis on applied problem solving, measurement issues in data analysis, use of computer for analysis of large-scale data. P/NP or letter grading.

130. Python and Other Technologies for Data Analysis. (4) Lecture, three hours; discussion, one hour. Preparation: basic statistics, basic computer literacy. Study of four commonly employed solutions—SPSS (Statistical Package for Social Sciences), Stata, SAS (Statistical Analysis System), and R—for data analysis and statistical issues in health sciences, engineering, economics, and government. Emphasis on applied problem solving, measurement issues in data analysis, use of computer for analysis of large-scale data. P/NP or letter grading.


147. Data Technologies for Data Scientists. (2) Lecture, two hours. Requisites: courses 100B or Mathematics 170S, 101A, 101C or Mathematics 156. Limited to seniors. Introduction to variety of tools and tools that are widely used in data science. Prepares students for applied work. Topics include use of collabor- ative repository hosting services allowing access to data and results. Recommended preparation: that cover computing power and database storage; open source artificial intelligence libraries. Recommended to be taken prior to or concurrently with course M148. Letter grading.

M8. Experience of Data Science. (4) (Same as Mathematics M141B.) Lecture, four hours. Requisites: courses 100B or Mathematics 170S, 101A, 101C or Mathematics 156, Mathematics 118, 131A. Students solve real data science problems for community- or campus-based clients. Students work in small groups with faculty member and client to frame client’s question in data science terms, create mathematical models to analyze data, and present results. Students may elect to undertake research on foundations of data science, studying advanced topics and writing senior thesis with discussion of findings or survey of literature on chosen foundational topic. Development of collaborative skills, communication principles, and discussion of ethical issues. Letter grading.

151. Experimental Design. (4) Lecture, three hours. Requisites: courses 100C, 101A. Basic principles, advantages and disadvantages of experimental designs, Latin squares, balanced incomplete block designs, factorial designs, fractional factorial designs, minimum aberration designs, robust parameter designs. Concurrently scheduled with course M141C. P/NP or letter grading.

M154. Measurement and Its Applications. (4) (Same as Psychology M144.) Lecture, three hours. Requisite: one course from 10, 12, 13, or Psychology 100A. Selected theories for quantification of psychological, edu- cational, social, and behavioral science data. Classical test, factor analysis, generalizability, item response, optimal scaling, ordinal measurement, computer-adaptive, and related theories. Construction of tests and measurement models of population characteristics. Practical applications of sampling methods via lectures and hands-on laboratory exer- cises. Concurrently scheduled with course CM248. P/NP or letter grading.

157. Probability and Statistics Data Modeling and Analysis Using Statistics Online Computational Re- source. (4) Lecture, three hours; discussion, one hour. Preparation: one mathematics, engineering, physics, or computer science course. Requisite: Program in Computing 20A. Probability and statistics topics in data-driven and interactive manner using open Internet resources. Varieties of data, study-
designs, and applications arising from biomedical, re-
search, and simulated data to prepare students for in-
novative multidisciplinary research. Use of Statistics
Online Computational Resource (SOCR). P/NP or
letter grading.

C161. Introduction to Pattern Recognition and Ma-
chine Learning. (4) Lecture, three hours. Requisites:
course 100B, Mathematics 33A. Introduction to pat-
tern analysis and machine intelligence designed for
advanced undergraduate and graduate students.
Concurrently scheduled with course C261. P/NP or
letter grading.

170. Introduction to Time-Series Analysis. (4) Le-
ture, three hours; discussion, one hour. Requisite:
course 100C or 101A, and 100B. Exploration of stan-
dard methods in temporal and frequency analysis
used in analysis of numerical time-series data. Ex-
amples provide development and interpretation of
implementation techniques discussed. P/NP or letter grading.

M171 Introduction to Spatial Statistics. (4) (Same as Geography M186.) Lecture, three hours; laboratory,
one hour. Requisite: one course from 10, 12, 13. In-
truction to methods of measurement and interpreta-
tion of geographic distributions and associations.
P/NP or letter grading.

C173. Applied Geostatistics. (4) Lecture, three hours;
discussion, two hours. Requisite: course 101A (may
be taken concurrently) or 101B. Geostatistics can be
applied to many problems in other disciplines such as
hydrology, traffic, air and water pollution, epidemi-
ology, ecology, waste management, forestry, oceanography, meteorology, and agriculture and,
in general, to every problem where data are ob-
served at geographic locations. Acquisition of know-
ledge from different areas that can be used to analyze
real spatial data problems and to connect geostatis-
tics with geographic information systems (GIS).
Con-
currently scheduled with course C273. P/NP or letter
grading.

175. Statistics for Spatial Data. (4) Lecture, three
hours; discussion, one hour. Statistical theories used
in analyzing spatial data. Study of three types of spa-
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207. Statistical Learning with Sparsity. (4) Lecture, three hours. Introduction to statistical learning with sparsity, including convex optimization techniques to help recover underlying signal in data. S/U or letter grading.


211. Topics in Economics and Machine Learning. (4) Lecture, three hours. Requisites: courses 200B, 201B, and Mathematics 115A. Examination of development in information technology lead to deeper engagement between technology and human that involve data, inferences, and decisions between multiple self-interested participants. Coverage of several use cases of synthetic data, including education, financial, and medical data, and on case studies that demonstrate how to apply these concepts and techniques to real-world problems. Topics include two-sided markets (college admissions, dating markets, etc.), social choice, crowd sourcing, reputation systems, equilibrium computation, mean-field game, and mean-field control. Letter grading.

212. Graphical Models. (4) Lecture, three hours. Recommended requisite: course 200A. Introduction to graphical models with applications in statistical modeling, machine learning, and causal inference. Coverage of several use cases of synthetic data, including education, financial, and medical data, and on case studies that demonstrate how to apply these concepts and techniques to real-world problems. Topics include two-sided markets (college admissions, dating markets, etc.), social choice, crowd sourcing, reputation systems, equilibrium computation, mean-field game, and mean-field control. Letter grading.

213. Synthetic Data Generation. (4) Lecture, three hours; discussion, one hour. Recommended requisite: course from 200B, 201B, 202A, M231A, 231B. Introduction to synthetic data generation, to build trustworthy artificial intelligence systems. In general, well-designed generation process of synthetic data can provide individual information (e.g., preserved data privacy), inject knowledge (e.g., guaranteed robustness), or increase diversity (e.g., enhanced fairness) based on raw data sets. Study includes tutorial on machine generation. General approaches for synthetic data: generative- adversarial-network-based methods, diffusion process-based methods, and generative-flow-network-based methods. Examination of several use cases of synthetic data in various industries including financial service, e-commerce, and health care. S/U or letter grading.


217. Statistical Analysis of Networks. (4) Lecture, three hours. Introduction to analysis of social structure, conceived in terms of social relationships. Major concepts of social network theory and mathematical representation of social relationships. Examination of how representations of network information, S/U or letter grading.


222. Pattern Recognition and Machine Learning. (Same as Computer Science M276A.) Lecture, three hours; discussion, one hour. Recommended requisites: courses 200B, 202B, or Computer Science 262A. Recommended preparation: programming skills in R, C/C++, or equivalent. Examination of pattern recognition and machine learning that are used in computer vision, image processing, speech recognition, data mining, statistics, and computational biology. Topics include Bayesian decision theory, parametric and nonparametric learning, clustering, complexity (VC-dimension, MDL, AIC, PCA/ICA/CA/CTA, MDS, SVM, boosting). S/U or letter grading.


225. Experimental Design. (4) Lecture, three hours; discussion, one hour. Recommended requisite: course 200B or 200A. Recommended preparation: programming skills in R, C/C++, or equivalent. Examination of design of experiments. Concurrently scheduled with course C151. S/U or letter grading.

226. Introduction to Bayesian Statistics. (4) Lecture, three hours; discussion, one hour. Recommended requisite: course 200A or 200B. Recommended preparation: programming skills in R, C/C++, or equivalent. Examination of design of experiments. Concurrently scheduled with course C151. S/U or letter grading.


229. Decision Theory. (4) Same as Political Science M208D and Psychology M257.) Lecture, three hours. Introduction to models and methods for analysis of data hypothesized to be generated by unmeasured latent variables, including latent variable analogues of traditional methods in multivariate analysis. Causal modeling: theory testing via analysis of moment measurement models, such as confirmatory, higher-order, and structural means factory analytic models. Structural equation models, including path and simultaneous equation models. Log-linear models and related testing, and other statistical issues. Computer implementation. Applications. S/U or letter grading.

M244. Statistical Theory: Random Variables. (4) (Same as Education M231E.) Lecture, three hours. Requisites: Education 231A, M231B. Introduction to general statistical modeling framework. Important special cases of this framework include confirmatory factor analysis, structural equation models, item response models, latent class models, and multilevel models, among others. Topics include discussions of general references in computational and theoretical models, model formulation, identification, estimation, and testing. Letter grading.


246. Statistical Model Selection. (4) Lecture, three hours. Preparation: course 100B or equivalent. Regression analysis and design of experiments, to develop understanding of oral and written presentations of statistical data problems and to connect geostatistics with geometric information systems (GIS). Concurrently scheduled with course C173. S/U or letter grading.


CM248. Applied Sampling. (4) (Same as Epidemiology M212A.) Lecture, three hours. Preparation: course 100A or 200A or Biostatistics 213A. Theory and practice with different forms of professional statistical functions. S/U grading.

M250. Statistical Methods for Epidemiology. (4) (Same as Epidemiology M211.) Lecture, four hours. Preparation: two terms of statistics (such as Biostatistics 102A and 102B, or equivalents: Epidemiology 200A, 200B, 200C). Concepts and methods tailored for analysis of epidemiologic data, with emphasis on tabular and graphical techniques. Expansion of topics introduced in previous term. Study of the role of data analysis in epidemiologic research and application of new topics, including principles of epidemiologic analysis, trend analysis, smoothing and sensitivity analysis. S/U or letter grading.

M254. Statistical Methods in Computational Biology. (4) (Same as Bioinformatics M223 and Biostatistics M271.) Lecture, three hours; discussion, one hour. Preparation: elementary probability concepts. Required: course 100A or 200A or Biostatistics M221. Introduction to statistical methods developed and widely applied in several branches of computational biology, such as gene expression, sequence alignment, comparative genomics, and biological networks, with emphasis on understanding of basic statistical concepts and use of statistical inference to solve biological problems. Letter grading.

256. Causality. (4) Lecture, three hours; discussion, one hour. Preparation: proficiency in basic R coding, probability theory, linear algebra, multivariate calculus, and statistics through inference and regression. Tools to pursue both theoretical and applied research in causality. S/U or letter grading.


271. Probabilistic Models of Visual Cortex. (4) Seminar, three hours. Preparation: course 100B or Mathematics 33A. Recommended: Computer Science 180, Introduction to Statistical Models of mammalian visual cortex, with topics in low-, mid-, and high-level vision. Discussion of relevant evidence from anatomy, electrophysiology, imaging (e.g., fMRI), and psychophysics. Concentration on mathematical modeling of these into account recent progress in probabilistic models of computer vision and developments in machine learning. S/U or letter grading.

C273. Applied Geostatistics. (4) Lecture, three hours; discussion, one hour. Geostatistics can be applied to many problems in other disciplines such as hydrology, traffic, air and water pollution, epidemiology, economic growth, traffic management, forest inventory, geographic data, oceanography, meteorology, and agriculture and, in general, to every problem where data are observed at geographic locations. Acquisition of knowledge from different areas that can be used to analyze real spatial data problems and to connect geostatistics with geographic information systems (GIS). Concurrently scheduled with course C173. S/U or letter grading.


285. Seminar: Research Topics in Statistics. (2 to 4) Seminar, one to three hours. Topics in various statistical areas by means of lectures and informal conferences with staff members. May be repeated for credit. S/U grading.

M286. Seminar: Statistical Problem Solving for Population Biology. (2) (Same as Ecology and Evolutionary Biology M286.) Seminar, two hours. Preparation: course 100B or equivalent. Design and analysis of experiments to test hypotheses in biology and other related fields. S/U grading.


411. Multivariate Statistical Analysis. (4) Lecture, three hours; discussion, one hour. Requisites: courses 10, 20, and 101A, or equivalent level of discipline. Limited to Master of Applied Statistics students. Emphasizes students working knowledge of basic concepts underlying most important multivariate techniques, with overview of actual applications in various fields, and with experience in choosing such techniques on problem of their own choosing. Addresses underlying mathematics and problems of applications. Reasonable level of competence in both statistics and mathematics is required. Letter grading.

412. Advanced Regression and Predictive Modeling. (4) Lecture, three hours; discussion, one hour. Limited to Master of Applied Statistics students. Often we are interested in making inferences and predictions from data, either by (1) estimating particular meaningful parameters of models or (2) finding best fitting model we can that then manipulate to produce useful outputs such as predictions or counterfactual estimates. Focus is on linear models and gets to explore regression and classification techniques that have been ubiquitous in machine learning literature in recent years, with special attention to regularization and kernel techniques. Letter grading.

413. Machine Learning. (4) Lecture, three hours; discussion, one hour. Limited to Master of Applied Statistics students. Recommended preparation: linear algebra, probability, computer programming knowledge. Introduction to machine learning and data mining methods. To gain in-depth understanding of these methods, implementation of them in R, Python, and C++. Letter grading.


415. Introduction to Forecasting. (4) Lecture, three hours; discussion, one hour. Limited to Master of Applied Statistics students. Designed for physical and social sciences students who are interested in using statistics and its applications for forecasting and data-driven decisions and for life sciences and medical school students who are interested in modeling of historical data to predict outcomes. Introduction to state-of-art statistical methods that rely on historical data collected in past to forecast future outcomes. Coverage of models used for forecasting only one measurement type and models used to forecast several types of measurements simultaneously. S/U or letter grading.

416. Applied Geostatistics. (4) Lecture, three hours; discussion, one hour. Requisites: courses 401, 402, and 403. Limited to Master of Applied Statistics students. Introduces various analysis of types of spatial and spatial-temporal datasets frequently arising in geostatistical problems. Geostatistical data arise commonly in nearly every science, wherever spatial data and meaningful data are obtained. Examples include geology, hydrology, traffic, air and water pollution, epidemiology, economics, geography, waste management, forestry, oceanography, meteorology, and agriculture. Modern methods for analyzing both lattice and point process data using R, and student performances of their own analysis of geostatistical datasets involving variogram modeling, kriging, model fitting, and estimation using maximum likelihood and nonparametric methods. Letter grading.


419. Experimental Design. (4) Lecture, three hours; discussion, one hour. Requisites: courses 402, 403. Limited to Master of Applied Statistics students. Fundamentals of designing experiments to gain maximal information while minimizing costs. Topics include role of randomization and blocking, comparing two or more treatments, randomized blocks, factorial design, Latin square designs, fractional factorial designs, response surface designs. Letter grading.

420. Causal Inference in Social Science Practice. (4) Lecture, three hours; discussion, one hour. Requisite: course 400. Recommended requisites: courses 401, 402, 403. Limited to Master of Applied Statistics students. Variety of designs and methods, including experiments, matching, regression, panel methods, difference-in-differences, synthetic control methods, instrumental variable estimation, regression discontinuity design, and sensitivity analysis. Basic skills from probability and statistics. Applications drawn from various fields including political science, public policy, economics, and sociology. Skills development is in using such techniques on any discipline in which investigators seeks to make causal statements but cannot fully randomize treatment. Letter grading.

421. Advanced Statistical Communication. (4) Formerly numbered 421B. Lecture, three hours; discussion, one hour. Designed to improve verbal and written communication skills related to various ways in which statistics is used in workplace. Directed toward students who are fluent in English and are already proficient in verbal and written communication of scientific results. Letter grading.


423. Longitudinal Data Analysis. (4) Lecture, three hours; discussion, one hour. Requisites: courses 10, 20, 101A, or equivalent level of discipline. Limited to Master of Applied Statistics students. Fundamental methods in longitudinal data analysis, with examples of actual applications in various disciplines. Students gain experience in using such techniques on problems of choice. Reasonable level of competence in both statistics and mathematics required. Letter grading.

424. Teamwork and Leadership in Data Science. (4) Lecture, three hours; discussion, one hour. Requisites: courses 10, 20, 101A, or equivalent level of discipline. Limited to Master of Applied Statistics students. Study team collaboration, negotiation, and problem solving in teams of data scientists. Students present statistical results for audiences ranging from business leaders to media outlets to academic statisticians. Letter grading.


495A. Teaching College Statistics. (2) Seminar, two hours; intensive training at beginning of Fall Quarter. Required of all potential departmental teaching assistants and new PhD students. Practical and theoretical issues in teaching of statistics. S/U grading.

495B. Teaching College Statistics. (2) Seminar, two hours. Weekly discussion and intensive training for all first-year teaching assistants that addresses practical and theoretical issues in using technology to teach statistics, including use of statistical software as education tool. S/U grading.

496. Statistics Internship. (2 to 4) Tutorial, four hours; field work, two hours. Under faculty supervision, production of substantial paper resulting in or arising from internship. S/U or letter grading.

497. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. Supervised individual reading and study on project approved by a faculty member. May be repeated for credit. Letter grading.

498. MAS Thesis Research. (2 to 8) Tutorial, four hours. Research on thesis project for MAS students. Project should be original analysis of data that solves pressing problem and is done typically in conjunction with an industry partner. May be repeated for credit. Letter grading.

506. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. Designed for second-year statistics MS students. Study and research for MS thesis. May be repeated for credit. Letter grading.

598. MS Thesis Research. (2 to 12) Tutorial, to be arranged. Preparation: advancement to PhD candidacy. Study and research for PhD dissertation. May be repeated for credit. S/U grading.


David Geffen School of Medicine
72-131 Center for Health Sciences
Box 951749
Los Angeles, CA 90095-1749

Surgery
310-825-6256
O. Joe Hines, MD, Chair
David C. Chen, MD, Vice Chair, Surgical Services, UCLA Santa Monica
Christian M. de Virgilio, MD, Vice Chair, Harbor-UCLA
Timothy R. Donahue, MD, Vice Chair, Surgical Cancer Care
Clifford Y. Ko, MD, MSHS, Vice Chair, Clinical Research
Jerzy W. Kupiec-Weglinski, MD, PhD, Vice Chair, Basic Science Research
Gerald S. Lipshutz, MD, Vice Chair, Research
Jessica B. O’Connell, MD, Vice Chair, VA Greater Los Angeles Healthcare System
Areti Tillou, MD, Vice Chair, Education
Elbery Washington, MD, Vice Chair, Charles R. Drew University of Medicine and Science
Overview
The Department of Surgery instructs medical students during all four years of medical school. Students are expected to obtain broad knowledge of diseases treated by surgical means and to understand the pathophysiology of these conditions, the therapy that may be applied, and the anticipated results of treatment. They are also encouraged to learn about the effects of surgical illness on the patient and the patient’s family and environment.

Second-year students participate in one eight-week core clerkship in clinical surgery and are assigned to rotations at a combination of Rea-gan UCLA, Cedars-Sinai Medical Center, Harbor-UCLA, West Los Angeles VA, Olive View-UCLA, Kaiser Permanente, and UCLA Santa Monica medical centers. Each facility has a special orientation depending on the patient population and the individual staff. During the fourth year, students may elect to take additional clinical rotations with increasing responsibilities. Additional in-depth elective courses are offered in collaboration with other departments.

For more details on the Department of Surgery and courses offered, see the department website.

Surgery

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SB. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: course 188SA. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to finalize course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced corequisite: course 188SB. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE 88S course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

199. Directed Research in Surgery. (2 to 8) Tutorial, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper required. May be repeated for credit. Individual contract required. P/NP or letter grading.

THEATER
School of Theater, Film, and Television
303 East Melnitz Building
Box 951622
Los Angeles, CA 90095-1622
Theater
310-825-7008
Department e-mail

J. Ed Araiza, BA, Chair

Faculty Roster

Professors

J. Ed Araiza, BA
Jeffrey A. Burke, MS, MFA, in Residence
Myung Hee A. Cho, MFA
Lap Chi Chu, MFA
Chrisi Karvounides-Dushenko, MFA
Suk-Young Kim, PhD
Brian E. Kite, MFA
Deborah Nadoolman Landis, PhD (David C. Copley Professor of Costume Design)
Sean A. Metzger, PhD
Dominic A. Taylor, MFA
Edit E. Villarreal, MFA

Professors Emeriti

Ailan M. Armstrong, MFA
Sue-Ellen Case, PhD
Hanay L. Gogiogamah, BFA
Michael J. Hackett, PhD
Patricia M. Harter, PhD
Robert H. Hethmon, PhD
Anna Krajewsk-Wieczorek, PhD
Michael S. McLain, PhD
Joanne T. McMaster, MFA
Rich S. Rose, MFA
Mel Shapiro, MFA
Carol J. Sorgenfrey, PhD
José Luis Valenzuela, BA
William D. Ward, MFA
Margaret L. Wilbur, MFA

Associate Professors

Jennifer M. Chang, MFA
Thomas K. O’Connor, MFA
Sylvan M. Oswald, MFA
Manike A. Splint, MFA

Assistant Professor

Felipe Cervera, PhD

Senior Lecturer SOE

Thomas J. Orth, Emeritus

Lecturers

Cheryl Baxter-Ratliff
Sara R. Clement, MFA
Perry M. Daniel, MFA
David M. Gorshein, PhD
Leanora Martino, MA
Angela R. Scott, MFA
Jonathan Snipes

Natsuo Tomita
Jonathan Wang, BS, MSOM

Adjunct Professors

Dan T. Belzer, MFA
F. Nicholas Gunn, Retired
Linda Kerns, Retired
Jeremy L. Mann
Ed J. Monaghan, MFA
Judith E. Moreland, MFA
Paul M. Wagard

Adjunct Associate Professor

Marilyn E. Fox

Academic Administrator

Jonathan Burke, MFA

Overview
The Department of Theater offers comprehensive training for the profession, including study of the theater's long history and in the artistic and intellectual challenges inherent in theater making.

Manifesting talent and promise as well as representing a wide range of backgrounds and interests, prospective students are selected by the faculty through auditions and interviews in cities throughout the U.S.

For current or specific information about the programs and faculty members, see the department website.

Undergraduate Study
At the undergraduate level, students receive education in acting, design and production, directing, formal and textual analysis, musical theater, performance studies, and playwriting, all within the rigorous liberal arts framework of the Bachelor of Arts (BA) degree. The department also offers a Theater minor.

Graduate Study
At the graduate level, students in the Master of Fine Arts (MFA) program develop as artists and are given preprofessional training in the skills of theater, while PhD students engage in critical investigations of performance broadly understood. In conjunction with their theater studies, students also have the opportunity to pursue elective courses in the area of film, digital media, and television, and, schedules allowing, take graduate courses from across UCLA.

Undergraduate Major
Theater BA
The Theater BA provides students with a liberal arts education by combining critical study of theater and performance with experiential
practice in one or more of its component parts. Students explore acting, design, directing, formal and textual analysis, playwriting, and production to build a foundation for future creative work. Specialized and advanced training is available to prepare students for a variety of careers, further training, or graduate study. At the upper-division level, students may choose from an array of advanced elective courses including those in acting, design and production, directing, musical theater, playwriting, theater history, and dramatic literature. Internships in areas such as producing and casting are also available.

**Capstone Major**

The Theater major is a designated capstone major. Theater capstone courses represent independent student scholarship and/or a high degree of artistic achievement in each of the undergraduate areas. Capstone courses are intended to be the culmination of all the broad educational courses and core foundational courses that a student has taken. Group participation in the creation and production of student projects is core to the curriculum. Capstone courses vary by area and require individual projects or performances, a major artistic contribution to a theater production, or an individual course of study resulting in a research paper. Through their capstone work, students demonstrate general knowledge and specialized skills, successfully relate their experience in a studio, production, or fieldwork setting, communicate effectively orally and in writing, and engage with a community of artists and scholars presenting theatrical work.

**Learning Outcomes**

The Theater major has the following learning outcomes:

- Demonstrated broad knowledge of fundamentals acquired through coursework, including general knowledge of the art form and skills in a specialized area of study
- Successful relation of experience in a studio, production, or fieldwork setting
- Engagement with a community of artists and scholars presenting theatrical work
- Effective oral and written communication

**Entry to the Major**

**Admission**

All applicants must meet the admission standards of UCLA and the departmental screening process. Applications are accepted only in November for admission to the following fall quarter. There are no mid-year admissions. Students must submit required supplemental materials directly to the Theater Department. If requested by the department, applicants must also sign up for an audition and/or interview online. There is a $90 fee for all interviews/auditions.

Applicants interested in one of the emphases in acting, design and production, integrated studies (including critical studies, directing, and playwriting) or musical theater may submit materials for consideration in that area.

**Requirements**

**Preparation for the Major**

Required: Theater 11, 12, 13, 14A, 14B, 14C, 50 (must be taken for 4 units total).

**The Major**

The major consists of Theater 101A, 101B, one course from 102A through 113, 131C or 163C or 180 (capstone seminar), one course (4 units) from 150, 173A, 173B, 174B, or 174C, and 34 upper-division theater elective units.

**Policies**

**The Major**

Up to 8 units of upper-division credit in the Department of Film, Television, and Digital Media may be included in the 34-unit theater elective requirement.

**Admission**

To enter the minor students must be in good academic standing (minimum 2.0 grade-point average), have completed at least one approved UCLA theater minor course with a grade of C or better, and files a petition at the Student Services Office, 103 East Melnitz Building, 310-206-8841. All degree requirements, including the specific requirements for this minor, must be fulfilled within the unit maximum set forth by each student’s school or College.

**Undergraduate Minor**

**Theater Minor**

The Theater minor is designed for students who wish to augment their major program of study with a series of courses that promote the study of theater as a global phenomenon for reflecting the human experience. The minor consists of a selection of lower-division courses that expose students to the fundamentals of theatrical production, as well as acting, writing, and directing. Upper-division courses offer more focused study of those areas, as well as theater design, history, education, and theater of non-Western cultures.

**Admission**

To enter the minor students must be in good academic standing (minimum 2.0 grade-point average), have completed at least one approved UCLA theater minor course with a grade of C or better, and file a petition at the Student Services Office, 103 East Melnitz Building, 310-206-8441. All degree requirements, including the specific requirements for this minor, must be fulfilled within the unit maximum set forth by each student’s school or College.

**The Minor**

Required Lower-Division Courses (6 to 10 units): Theater 10 and one course from 15, 20, 28A, 28B, 28C, 30.

Required Upper-Division Courses (22 to 27 units): Theater 150, one course from 102A through 113, and four courses selected from 117, 118A, 118B, 118D, 120A, 120B, 120C, 121, 123, 128A, 130, 136, 138, 139, C146A, C146B, 149, 195.

**Policies**

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor, and at least 16 units applied toward the minor must be taken in residence at UCLA. Transfer credit for any of the above is subject to department approval.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

**Graduate Majors**

**Theater MFA**

**Requirements**

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

**Theater and Performance Studies CPhil, PhD**

**Requirements**

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

**Theater**

**Lower-Division Courses**

1A-1B-1C. Introduction to Dance for Music Theater. (1–1–1) Studio, four hours. Taught for Theater majors. Introduction to basic music theater dance technique. Each course may be repeated once for credit. Letter grading.

2A. Tai Chi I. (1–1–1) Studio, two to four hours. Emphasizes proper form, etiquette as coextensive with training, and other values that sustain physical practice over lifetime. Actors increase focus, enhance discipline, cultivate internal energy, and relax mind and body. Demonstration of how each tai chi movement works in self-defense situation. Letter grading.

2B. Tai Chi II. (1–1–1) Studio, two to four hours. Requisite: course 2A. Taught for Theater majors. Reviews, refines, and advances work of course 2A, introducing new forms, and delving more deeply into practice of Yang-style tai chi. Courses in performance practice continuum emphasize proper form, etiquette, and other values that sustain practice over lifetime. May be repeated once for credit. Letter grading.

3. Aikido. (1) Studio, two to four hours. Taught for Theater majors. Introduction to basic stance, falls, throws, and pins of 20th-century martial art, Aikido.
Courses in performance practice continuum emphasize proper form and etiquette. May be repeated twice for credit. Letter grading.

10. Introduction to Theater. (5) Lecture, three hours; discussion, three hours (when offered). Emphasis on collaborative role of theater artists and active role of audience. Understanding of and access to live theatrical event and enhanced appreciation of value of theater to society; development of critical skills through consideration of representative examples of theatrical production from Europe, America, Asia, and Africa. P/NP or Letter grading.

11. Approaches to Interpretation of Theater and Performance: Global Perspective. (5) Seminar, four hours. Introduction to basic methods of interpretation in theater and performance throughout world. Topics illustrated by faculty members and guest speakers, visits to off-campus theaters, and reading from contemporary plays. Letter grading.

12. Introduction to Performance. (4) Lecture, two hours; studio, four hours. Investigation of phenomenon of performance and role of performer in theatrical events, including interpretation of drama through performance. Examination of various forms of theatrical performance and styles of expression, and development of acting, voice, and movement skills. Letter grading.

13. Play Reading and Analysis. (5) Lecture, three hours. Provides base for subsequent study in theater. Development of techniques of play reading and habits of scholarship useful to further study in each of theater's subdisciplines, including acting, directing, design, playwriting, and critical study. Letter grading.


15. Introduction to Directing. (4) Lecture, two hours; studio, four hours. Investigation of role of director in theatrical production and theories of play direction, with emphasis on analysis and interpretation of dramatic work and its realization in production. Letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP or Letter grading.

20. Acting Fundamentals. (4) Studio, four hours. Introduction to interpretation of drama through art of actor. Development of individual insights, skills, and disciplines in presentation of dramatic material to audiences. P/NP or Letter grading.


23A. Introduction to Musical Literacy for Singing Actors. (2) (Formerly numbered 23.) Studio, three hours. Reading and translating musical notation in treble clef; defining common musical terminologies; basic rhythm-reading and diatonic sight-singing in all major keys. Letter grading.

23B. Advanced Musical Literacy for Singing Actors. (1) Studio, three hours. Requisite: course 23A. More advanced sight-singing, incorporating minor keys, chromatic scales, internal key changes, and bass clef; exploration of the roles played by form, meter, modes, and harmonic/contrapuntal singing. Letter grading.

24A. Actor's Voice. (2) Studio, three to four hours. Study of basic vocal technique for actor, with emphasis on voice production and phonation. Exploration of physiology for subsequent training. Letter grading.

24B. Voice in Performance. (2) Studio, three to four hours. Requisite: course 24A. Continuation of course 24A, with greater emphasis on group and/or solo performance projects that present targeted vocal and textual challenges. Letter grading.

24C. Voice and Speech I. (1) Studio, three to four hours. Development of voice and speech techniques for stage. Letter grading.

25. Articulation and Body. (2) Studio, three to four hours. Study of balance and gestural principles of body in performance. Includes strategies of movement initiation and organization, as well as performance of movement scores to support actor's craft. Letter grading.

26. Alexander Techniques. (2) Studio, three hours. Study and practice in Alexander techniques as method of developing balance, poise, and coordination of body and mind. Exploration of use of rhythm to expand movement potential of actors and relevant use of visual arts and animal studies to characterize development and to expansion of movement potential. P/NP or Letter grading.

27. From Vauvelle to Standup Comedy. (4) Studio, three to four hours. Exploration of many aspects of comedy using American vaudeville traditions, acts, and performers as historical base to experience importance of rhythm, timing, delivery, speech, and body language in all styles of comedy, to find value of improvisation/imagination as well as innovative writing skills in all comic forms, to discover how comedy drama is related to its antecedents, and to experience and develop own powers of mimicry, dance, storytelling, clowning, magic, designing, and tumbling/stunts, and to build overall confidence/ease in comic performance skills. P/NP or Letter grading.

28A-28B-28C. Acting, Voice, and Movement Workshops I. (2 each) Studio, three to six hours (28A-28C) and six hours (28-B-F). Study of beginning acting technique, scene study, and development of voice and movement skills. Each course may be repeated for maximum of 12 units. Letter grading.

30. Dramatic Writing. (4) Studio, three hours. Intended for theater minors and other nonmajors. Exploration and development of creative writing skills for one or more of various forms of entertainment media. May be repeated once. Letter grading.

34A-34B-34C. Ballet II. (1–1–1) Studio, five hours. Development of dance and movement techniques for musical theater. Letter grading.

35A. Group Singing Techniques. (1) Studio, three hours. Requisite: course 35. Introduction to singing techniques, with emphasis on bel canto training. Exploration of how singing voice works and how to achieve optimal vocal sound and musicality while preserving vocal health. Letter grading.

35B. Advanced Group Singing Techniques. (1) Studio, three hours. Requisite: course 35A. Advanced singing techniques, focusing on strategies for producing consistently dynamic, efficient, and musical vocal sound, and how to build stamina and range while preserving vocal health. Letter grading.

50. Theater Production. (1 to 2) Laboratory, three to six hours. Laboratory experience in various aspects of theater production, including stage management or member of production crew. May be repeated for maximum of 8 units. Letter grading.

72. Production Practice in Theater, Film, Video, and Digital Media. (1 to 8) Studio, three hours. Exploration and laboratory experience in more of various aspects of production and postproduction practice for entertainment media, including theater, film, video, and digital media. May be taken for maximum of 8 units. Letter grading.

73. Production Practice in Theater with Emerging Technologies. (4) Studio and laboratory, four to six hours. Introductory studio with focus on collaborative creative and technical development of emerging and/or advanced technologies. Letter grading.

76. Introduction to Production Practice in Theater with Emerging Technologies. (4) Studio and laboratory, four to six hours. Introductory studio with focus on collaborative creative and technical development of emerging and/or advanced technologies, often culminating in rehearsal and/or public presentation. Letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or Letter grading.

95. Introduction to Community or Corporate Internships in Theater, Film, and Television. (2 to 4) Tutorial, six to 12 hours. Limited to freshmen/sophomores. Internship at various theater and entertainment organizations accentuating creative contributions, organization, and work of professionals in various specialties. Students meet on regular basis with faculty member and provide periodic letter grades. May be taken for maximum of 4 units. Individual contract with supervising faculty member required. P/NP or Letter grading.

99. Student Research Program. (1 to 2) Tutorial (su) or Laboratory, three to six hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP or Letter grading.

Upper-Division Courses

101A. Global Histories of Theater and Performance I. (5) Lecture, three hours; discussion, one hour. Introduction to histories of theatrical practice from across world, with emphasis on ancient world through 18th century. Introduction to global aesthetic theories and historiographical research methods. Letter grading.

101B. Global Histories of Theater and Performance II. (5) Lecture, three hours; discussion, one hour. Introduction to histories and historiographies of theater and performance from across world, with emphasis from 18th century through 21st century. Introduction to representational modalities from melodrama to performance art and theoretical approaches from Marxism to poststructuralism. Letter grading.

102A. Theater of Japan. (8) Lecture, three hours. Overview of Japanese theater and performance from early theatrical activity to present, with emphasis on enduring forms and genres, patterns of reception, and transnational influences. Letter grading.

102B. K-Pop: Race, Gender, and Sexuality in Globalizing Asian Media. (5) Lecture, two hours; discussion, two hours. Exploration of K-pop through critical lens of gender queerness, racial plagiarism and cultural appropriation, body performance, technology, transmedia, and globalization. Study acknowledges that history of globalization and evolution of media ecosystem cannot be studied without considering uneven power dynamics marked by racial and gender hierarchies and digital accessibility. Letter grading.

102C. Cross-Cultural Currents in Theater. (5) Lecture, three hours. Exploration of interculturalism in theater, with focus on 20th-century alternatives to nativism. Analysis of historical materials and dramatic texts to investigate cultural, aesthetic, ethical, and social implications of borrowing from other cultures. Letter grading.

M103A. African American Theater History: Slavery to Mid-1800s. (4) (Same as African American Studies M103A.) Lecture, three hours. Designed for juniors/seniors. Exploration of extant materials on history and literature of African American theater; focus on African American artists in America from slavery to mid-1800s. Letter grading.

M103B. African American Theater History: Minstrel and Emergence of American Musical Theater. (4) (Same as African American Studies M103B.) Lecture, three hours. Designed for juniors/seniors. Exploration of extant materials on history and literature of theater as developed and performed by African American artists in America from minstrel stage to rise of American musical. Letter grading.

M103C. Origins and Evolution of Chicano Theater. (4) (Same as Chicano/a and Central American Studies M103C.) Lecture, three hours. Designed for juniors/seniors. Exploration of development of Chicano theater...
from its beginning in legends and rituals of ancient Mexico to work of Luis Valdez (late 1960s). P/NP or letter grading.

M103D. Contemporary Chicano Theater: Beginning of Chicano Theater. (5) Same as Chicano/a and Central American Studies M103D. Lecture, three hours. Analysis and discussion of historical and political events from 1965 to 1980, as well as theatrical movements that led to emergence of Chicano theater. Letter grading.

M103E. Modern African American Drama: Harlem Renaissance to Black Arts Movement. (4) Same as Chicano/a and Central American Studies M103E. Lecture, three hours. Analysis and discussion of Chicano theater since 1980, including discussion of Chicana/o playwrights, their significant involvement in creation of diversified American theatrical tradition. Letter grading.


103I. Israel and Palestine: Communities, Conflicts, Cultures, and Art. (4) Lecture, three hours. No background or prior interest in history or region or arts required. Land variously known by names of Zion, Holy Land, Palestine, and Israel is not just one image of imagination, envisioned and re-envisioned throughout history. It is at once real and surreal, stardy and fragile, all-enduring and ephemeral. Examination of selected works of literature, performance, visual arts, film, and media by Israeli and Palestinian artists, as well as Western artists with interest in region. Looking beyond headlines and facile cultural cliché for deeper insights art can offer into cultural conflict and community at large, to emerge with surprising conclusions. Letter grading.

M103J. Contemporary Black Theater: Modern Civil Rights Era to Black Lives Matter and Beyond. (4) Same as African American Studies M103J. Lecture, three hours. How themes of race, conflict, and geographic and political influences to provide historical framework for design of scenery, costumes, and lighting for theater, film, and television. May be repeated once for credit. Concurrently scheduled with course C404G. Letter grading.

C104E. History of Design Décor Part II: Architecture and Décor—Antiquity to Early Neoclassical. (4) Lecture, four hours. Requisites: courses 14A, 14B, 14C. Study of pre-Renaissance architectural and interior decor as manifestation of cultural, social, economic, and political influences to provide historical framework for design of costumes for theater, film, and television. Survey of history of Western costume and civilian attire. May be repeated once for credit. Concurrently scheduled with course C404G. Letter grading.

C104F. History of Design for Performance Production Part II: Historic Costume from Prehistoric to Neoclassical. (4) Lecture, four hours. Requisites: courses 14A, 14B, 14C. Study of historic costume as manifestation of cultural, social, economic, and political influences to provide historical framework for design of costumes for theater, film, and television. Survey of history of Western costume and civilian attire. May be repeated once for credit. Concurrently scheduled with course C404G. Letter grading.

C104I. History of Design for Performance Production Part II: Costume Design. (4) Lecture, four hours. Requisites: courses 14A, 14B, 14C. Study of costume as manifestation of cultural, social, economic, and political influences to provide historical framework for design of costumes for theater, film, and television. Survey of history of Western costume and civilian attire with global emphasis. May be repeated once for credit. Concurrently scheduled with course C404I. Letter grading.

C104J. History of Design for Performance Production: Selected Topics of Décor and Costume Design History. (4) Lecture, four hours. Requisites: courses 14A, 14B, 14C. Study of historic costume as manifestation of cultural, social, economic, and political influences to provide historical framework for design of costumes for theater, film, and television. May be repeated three times for credit. Concurrently scheduled with course C404J. Letter grading.


107. Drama of Diversity. (5) Lecture, three hours; discussion, one hour (when scheduled). Investigation of diversity in American society as manifested in dramatic works and theatrical presentations. P/NP or Letter grading.

108. Undergraduate Seminar: History and Criticism. (5) Seminar, four hours. Limited to 15 students. Selected topics in history and criticism of theater and performance. Study of how experimental theaters originate, how they imagine their form of performance, their audience, and their goals. Concentration on theater that regarded themselves, in some way, as experimental. Examples primarily from theaters within U.S. from 1967 to present as well as from other countries, specifically Poland, also considered. Letter grading.


M113. Contemporary Physical Theater. (5) Lecture, four hours; other, to be arranged. Practical application of creative drama process. Exploration of interrelationships of arts to traditional disciplines of learning. May be repeated once for credit. P/NP or letter grading.

114. Special Topics in Theater and Performance Studies. (5) Lecture, three or four hours. Consult Schedule of Classes for author, period, genre, or subject to be studied in specific term. May be repeated for credit. P/NP or letter grading.

M114. Variable Topics in Performance and Disability Studies. (4) Same as Disability Studies M114. Seminar, four hours. Analysis and critique of depiction of disability in theater. Topics may include introduction to disability studies; race, gender, and disability; representation of disability in theater; and more. May be repeated for credit with topic or instructor change. P/NP or letter grading.


117. Topics in Physical Performance. (2) Studio, three to four hours. Exploration of specific physical performance techniques, and/or modern physical theater practices. Topics may include specific types of partnering, combat, martial arts, vintage dance, etc. May be repeated twice for credit. Letter grading.

118A. Creative Dramatics. (4) Lecture/laboratory, four hours. Studies of principles and procedures of improvisational approach to drama as done with children from nursery school to junior high. P/NP or letter grading.

118B. Advanced Creative Dramatics. (2 to 4) Lecture, four hours; other, to be arranged. Practical application of creative drama process. Exploration of interrelationships of arts to traditional disciplines of learning. May be repeated once for credit. P/NP or letter grading.

119A. Interactive Theater. (4) Lecture, four hours. Active, problem-solving process of theater exercises and games designed to examine racial stereotypes, sexual harassment, gender discrimination, and other issues that divide members of campus community, as well as issues that divide campuses from Los Angeles community. Selected to increase social and political awareness of problems and ideas fundamental to intercultural communication, with an emphasis on developing skills and attitudes useful in facilitating discussions between actors and audience participants. Use of techniques of sensory awareness, movement, pantomime, improvisation, and characterization. Letter grading.

118D. ArtsBridge Teaching Practicum. (4) Lecture, four hours. Requisites: courses 118A, 118B. Development of K-12 teaching materials to integrate theater with specific core curriculum. Collaboration with class-
room teacher to identify core subject to be taught. Language arts, science, history, mathematics, and social sciences are possible curricular areas. Development of evaluation techniques to measure effectiveness of incorporating theater materials into curriculum. Weekly meetings to discuss teaching strategies and prepare written lesson plans that incorporate California Teaching Content Standards, objectives, motivation, detailed implementation of lesson plan, and ideas for assessment. Classroom work culminates in thoroughly documented final project evaluated by Arts-Bridge student, classroom teacher, and UCLA faculty members. P/NP or letter grading.

120A–120B. Acting and Performance in Film. (5–5) Lecture, six hours. Exploration of acting and performance in film. Through screenings of performance-driven films, class and acting exercises, examination of methods, styles, and performances of some of world’s most highly regarded actors and their work. P/NP or letter grading.

120C. Acting and Performance in Film. (5) Lecture, six hours. Exploration of acting and performance in film. Through screenings of performance-driven films, class discussion, and acting exercises, examination of methods, styles, and performances of some of world’s most highly regarded actors and their work. P/NP or letter grading.

121. Acting Workshop. (2) Studio, to be arranged. Requisite: course 20, Courses 160, 163A, 163B, and 163C may not be taken concurrently. Workshop that provides students with opportunity to rehearse, perform, and criticize scenes. May be repeated once for credit. P/NP or letter grading.

C122. Character Development through Makeup and Hair Design. (2) Studio, four hours. Examination of importance of makeup and hair design in film. History and overview of hair and makeup in fashion and motion pictures. Collaboration of makeup artists and hair-stylists with costume design, actors, production designer, and director to conceptualize people in script. Exploration of makeup artist and hairstylist roles in current film, television, and theater productions and skills needed to design makeup and hair for film and television productions. Concurrently scheduled with course C222. Letter grading.


124A. Intermediate Voice and Speech I: Vocal Ener- gy in Classical Texts. (4) Studio, three to four hours. Requisites: courses 24A and 24B, or 28A and 28B. Creation of warm-up and building of vocal energy through understanding, ideas, and thoughts, and expression. Examination of diaphragmatic connection and breath control to work towards vocal and speech, and including Shakespearean sonnet. Letter grading.

124B. Intermediate Voice and Speech II: Creating Complete Warm-Up for Theatrical Productions. (2) Studio, three to four hours. Requisites: courses 24A, 24B, and 124A, or 28A, 28B, and 124A. Working with contemporary texts to learn all simple vowels (lip, tongue, open, neutral) and to communicate sound consistently with voice, body, and movement. Creation of complete warm-up for theatrical production using these methods. Letter grading.


125B. Physical Awareness and Combat for Theater, Film, and Television. (2) Studio, to four hours. Requisite: courses 25 or 28C. Battle training for actors in theater, film, and television. Concentration on warm-up, relaxation, control, stunts, gymnastics, martial arts, and use of weapons. Letter grading.

125D–125F. Movement and Combat III. (2–1–2) Studio, three to four hours. Physical awareness for actors, concentrating on warming up body, relaxation, control, stunts, gymnastics, martial arts, and use of weapons. Letter grading.


127. Performance for Virtual Environments. (4) Lecture, two hours; discussion, one hour; laboratory, two hours. Exploration of performance in virtual environments through hands-on experimentation and scene work using two or more vocal/visual techniques supported by history of each technology and its use in arts, key technological concepts, and basic production processes. Consideration of uses in large scale professional production as well as low-budget and do-it-yourself approaches. Platforms studied are selected for their importance to field, timeliness, and relationship to department program. Students engage with platforms as character actor, director, and self-selected scenes. Students explore character development, different relationships to audience and camera, and engagement/synchronization with virtual setting. Students design and collaboratively in concert with study of experiences of other actors, directors, and other creators with platforms. Letter grading.

128A. Acting, Voice, and Movement Workshops II. (2) Studio, four to six hours. Study of advanced acting technique, scene study, and development of voice and movement skills. May be repeated for maximum of 12 units. Letter grading.

CM129. Contemporary Topics in Theater, Film, and Television. (2) Same as Film and Television CM129. Lecture, two hours; screenings, two hours. Limited to junior/senior and graduate theater/film and television students. Examination of creative process in theater, film, television, and television of writing, direction, production, and performance. Overview of individual contributions in collaborative effort; examination of distinctiveness and interrelations among these arts. Individual units include participation of leading members of theater, film, and television professions. May be repeated twice for credit. Concurrently scheduled with course CM229. P/NP or letter grading.


C133A. Script Development Workshops. (4–8) Lecture, three hours; studio, four to 24 hours. Guided process of script development, with emphasis on communication, artistic growth, and professional process. May be taken for maximum of 8 units. Concurrently scheduled with course C433A. Letter grading.


134G. Dance for Musical Theater: Ballet. (1) Studio, three to four hours. Designed for Theater majors. Intermediate level course. Development of skills and fur- therment of concepts of ballet technique. Emphasis on development of proper placement, building strength and flexibility, higher level of techniques, and awareness of musicality and artistic expression. May be re- peated five times for credit. Letter grading.

135. Musical Theater Vocal Styles: Gospel. (2) Studio, three hours. Designed for Theater majors. Part of five-course series of musical theater performance techniques in which students explore and master va- rious vocal styles and/or acting approaches necessary to be competitive in field of professional musical theater. Exploration of strategies and techniques for singing gospel and rhythm and blues music, with solo and group improvisation as foundation. Letter grading.


135C. Musical Theater Vocal Styles: Legitimate/OPer- etta. (2) Studio, three hours. Designed for Theater majors. Part of five-course series of musical theater performance techniques in which students explore and master va- rious vocal styles and/or acting approaches necessary to be competitive in field of professional musical theater. Exploration of strategies and techniques for singing legitimate/opera music, with focus on vocal and body strengthening exercises and solo song coaching. Letter grading.

135D. Musical Theater Vocal Styles: Rock. (2) Studio, three hours. Designed for Theater majors. Part of five-course series of musical theater performance tech- niques in which students explore and master variety of vocal styles and/or acting approaches necessary to be competitive in field of professional musical theater. Exploration of strategies and techniques for singing rock music, with emphasis on vocal and body strengthening exercises and solo song coaching. Letter grading.

135E. Musical Theater: Creating and Playing Char- acters from Musical Text. (2) Studio, two to three hours. Designed for Theater majors. Exploration of text and lyrics of musical theater piece, song cycle, or specific composer’s work from actors’ points of view. Students develop skill in creating and observing, and improvisation. Emphasis on creating and sustaining character through singing. Letter grading.

135F. Singing: Individual Instruction. (1) Studio, one hour. Requisite: course 35B. Designed to advance particular vocal technique, focusing on vowel shape, range expression, and overall mastery of vocal instrument. May be repeated four times for credit. Letter grading.
136. Advanced Acting for Stage. (4) Studio, four hours. Requisite: course 123. Study and practice of art of acting through progression to more advanced acting problems. Concurrently scheduled with course 115B. Design to aid the actor in the transition from stage to film work. Examination of film production and its physical characteristics and the acting style needed for work in film and television. Students may perform in simulated studio setting on camera. May be repeated once for credit with instructor change. Letter grading.

137. Acting for the Camera. (4) Lecture/studio, four to six hours. Requisite: course 115B. Design to aid the actor in the transition from stage to film work. Examination of film production and its physical characteristics and the acting style needed for work in film and television. Students may perform in simulated studio setting on camera. May be repeated once for credit with instructor change. Letter grading.

138. Special Problems in Performance Techniques. (4) Studio, four hours. Study of complex problems in voice, movement, and acting. May be repeated twice for credit. P/NP or letter grading.

139. Play Reading and Analysis. (5) Lecture, three hours. Investigation of dramatic texts, with focus on play structure, plot, character, dialogue, ideas, and various other elements essential to effective theatrical interpretation and realization. Letter grading.

C146A-C146B. Art and Process of Entertainment Design. (4-4) Lecture. Conceptualization, design, and prototyping of entertainment environments. Concurrently scheduled with courses C446A-C446B. Letter grading. C146A. Exploration of original forms of media-rich entertainment experience through lectures, presentations, and participatory workshops. Students form collaborative teams to conceive and propose interactive entertainment events. C146B. Prototype development; two to five proposals to be more completely defined and developed. Students form collaborative teams for further conceptual development of their project proposals. May be repeated once for credit.

147A. Drafting. (4) Studio, four hours. Development of visual and written skills through drafting. Exploration of drafting for scenic and lighting designs. May be repeated once for credit. P/NP or letter grading.

148. Special Courses in Design and Technical Theater. (4) Lecture, three hours. Group study of selected subjects in design and technical theater. May be repeated twice for credit. P/NP or letter grading.

149. Introduction to Design. (5) Lecture, three hours. Exploration of interpretation of drama through design, including study of scenic and lighting techniques of design. Collaborative role of designer, principles of design for scenery, lighting, costumes, and sound. Both technical and aesthetic groundworks for further study. Investigation of professional practice and design research process, composition, and conceptualization. Investigation of design research process, composition, and conceptualization. May be repeated twice for credit. Concurrently scheduled with course C452E. Letter grading.

C151A, C151B. Graphic Representation of Design: Multimodal Rendering. (2) Studio, four hours. Study of model for representation of design ideas and rendering techniques. Concurrently scheduled with course C455A. Letter grading.

C155B. Graphic Representation of Design: Digital Rendering. (2) Studio, four hours. Study of digital media rendering techniques as they relate to interpretation of scenic, lighting, and costume renderings, with focus on human form in space. Weekly demonstrations of wide variety of art media, including watercolor, markers, pastel, and collage rendering. May be repeated twice for credit. Concurrently scheduled with course C455B. Letter grading.

C156. History of Costume Design in Movies. (4) Lecture, three hours; screenings, two to six hours. History of costume design within context of 20th-century film. Emphasis on evolution of role of costume designer since early days of film industry. Role of costume designer and contribution of costume design to cinematic storytelling. Concurrently scheduled with course C453E. Letter grading.


C160. Advanced Design for Musicals. (4) Lecture/studio, four hours. Requisites: courses 14A, 14B, 14C. Exploration of sound design for theater and technologies for mixing, reinforcement, and signal processing. Topics include use of delay, equalization, and microphone placement for theater sound reinforcement with focus on mixing musicians. Covers paper work needed to complete show. Tuning space, equalization, working with some advanced programming and mixing on various consoles. May be repeated once for credit. Concurrently scheduled with course C454B. Letter grading.

C161A-C161D. Lighting Design for Performances and Special Events. (4) Lecture, four hours. Requisites: courses C152A, C152B, C152C. Advanced topics in lighting design, including live performances for concerts, exhibitions, and live events. Concurrently scheduled with course C452D. Letter grading.

C162E. Lighting Design for Dance. (4) Lecture, four hours. Requisite: course C152A, C152B, or C152C. Advanced topics in lighting design, concentrating on live dance performance in all styles. Concurrently scheduled with course C452E. Letter grading.

C163A. Costume Design. (4) Lecture/studio, four hours. Requisites: courses 14A, 14B, 14C; for transfer students: course 149. Study of costume design for proscenium, thrust, and arena configurations, music theater, and concert lighting. May be repeated twice for credit. Concurrently scheduled with course C452B. Letter grading.

C163B. Costume Design for Theater. (4) Lecture/studio, four hours. Requisites: courses 14A, 14B, 14C; for transfer students: course 149. Study of costume design for proscenium, thrust, and arena configurations, multiset productions, and music theater. May be repeated twice for credit. Concurrently scheduled with course C452B. Letter grading.

C163C. Costume Design for Film and Television. (4) Lecture/studio, four hours. Requisites: courses 14A, 14B, 14C; for transfer students: course 149. Study of current professional costume design and wardrobe practices in film and television, including effect of differing media on design choices. May be repeated twice for credit. Concurrently scheduled with course C453C. Letter grading.

C163D. Projects in Costume Design Management. (4) Lecture, three hours; screenings, two to six hours. Preparation of presentations of design concepts for scenic design offerings, set designs, costume presentations, and special effects. Concurrently scheduled with course C453D. Letter grading.

C155F. Graphic Representation of Design: Costume Rendering. (2) Studio, four hours. Requisite: course 147A or 147B. Study of techniques for rendering theatrical costumes, and fabrics. May be repeated twice for credit. Concurrently scheduled with course C455F. Letter grading.

C155G. Graphic Representation of Design: Scene Painting Techniques. (2) Studio, four hours. Requisite: course 147A or 147B. Study of scenic painting techniques and materials and their realization of color design and elevations. May be repeated once for credit. Concurrently scheduled with course C455G. Letter grading.

C155H. Selected Topics in Graphic Representation of Design. (2) Studio, six hours. Group study of selected subjects in techniques for interpretation of design for theater. May be repeated once for credit. Concurrently scheduled with course C455H. Letter grading.

C156A. Introduction to Computer-Assisted Drafting. (4) Studio, four hours. Requisite: course 147A. Investigation of drawing and editing techniques, drafting floor plan sections, and elevation drawings using AutoCAD. Concurrently scheduled with course C456A. Letter grading.

C156B. Advanced Computer-Assisted Drafting. (4) Studio, four hours. Requisite: course 147A or 147B. Study of techniques for graphical representation of design using AutoCAD. Concurrently scheduled with course C456B. Letter grading.


C156D. Introduction to Computer-Assisted Drafting. (4) Studio, four hours. Requisite: course 147A. Investigation of drawing and editing techniques, drafting floor plan sections, and elevation drawings using Vectorworks. Concurrently scheduled with course C456D. Letter grading.


C156G. Virtual Reality Rendering for Film. (2) Studio, four hours. Requisites: courses C155C, C155H, C156A, C156B, C156C. Preparation: basic 3D modeling and rendering skills. Students learn how to translate 3D models developed in Maya into Unreal Engine game engine environment, and utilize this platform as a powerful tool for development, presentation, and staging of films and theater set design. Students primarily use Autodesk Maya and Unreal Engine, but are also introduced to Zbrush, Blender, Quixel, and other ancillary resources. Concurrently scheduled with course C456G. Letter grading.

C157A-C157B-C157C. Costume Construction Techniques. (2–2–2) Studio, four hours. Study of theory and application of drafting, pattern making, fitting, and construction techniques for period costumes and period design, to achieve authentic-appearing costume using contemporary methods. Each course may be repeated once for credit. Concurrently scheduled with courses C457A-C457B-C457C. P/NP or letter grading.


160. Fundamentals of Play Direction. (5) Lecture, two hours; laboratory, four hours. Requisite: course 15 with concurrent 147A. Course may be taken concurrently. Basic theories of play direction and their application through preparation of scenes under reheasal conditions. Letter grading.

163A. Directing for Stage. (4) Lecture/studio, four hours. Requisite: course 15. Intensive development of primary directing skills and process, including text analysis and exploration of craft fundamentals as basis for director/actor communication and effective staging. Students direct scenes from plays under laboratory conditions. Letter grading.


163D. Directing Project for Stage. (5) Discussion, three hours; laboratory, four to eight hours. Requisites: courses 163A, 163B. Employment of stage directing techniques in production of short play or project. Students direct one-act play or project. May be repeated once for credit. Concurrently scheduled with course C458D. Letter grading.

167A. Career Preparation for Actor. (2) Lecture/ studio, three to four hours. Requisite: course 116B. Preparation for professional career as actor in film, television, theater, and commercials. Topics include audition preparation, head shots, resumes, agents, managers, casting directors, producers, unions, survival skills, professional development. Letter grading.

167B. Audition Preparation for Singing Actor. (2) Lecture/studio, three hours. Requisite: one course from 134A through 135F. Audition preparation for singing actor, providing various techniques to prepare for and successfully execute professional musical theater auditions. Letter grading.

170. Design and Production Project. (4) Laboratory, eight hours. Requisites: courses 14A, 14B, 14C. Experience as stage manager or designer, including participation in preparation and realization of scenic, lighting, costume, or sound designs, or stage management production. May be repeated once for credit. Letter grading.

171A. Advanced Theater Laboratory. (1 to 4) Laboratory, to be arranged. Creative participation as actor or stage manager in production and postproduction preparation of departmental productions. May be taken for maximum of 4 units. P/NP or letter grading.

171B. Advanced Theater Laboratory. (1 to 4) Laboratory, to be arranged. Creative participation in realization of production elements related to public presentation of departmental productions. May be taken for maximum of 4 units. P/NP or letter grading.

172. Production Practice in Theater, Film, Video, and Digital Media. (1 to 8) Studio, three to eight hours. Exploration and laboratory experience in one or more workshops exploring production and postproduction practice for entertainment media, including theater, film, video, and digital media. May be repeated for maximum of 24 units. Letter grading.

173A. Design Assignment: Assistant Designer. (2) Studio, six hours. Requisites: courses 14A, 14B, 14C. Laboratory experience as assistant designer, including participation in preparation and realization of scenic, lighting, costume, or sound designs. May be repeated twice. Letter grading.

173B. Production Design Assignment: Designer. (2) Studio, six hours. Requisites: courses 14A, 14B, 14C. Laboratory experience as designer, including preparation and realization of scenic, lighting, costume, or sound designs. May be repeated twice. Letter grading.


174B. Project in Stage Management. (3) Studio, nine units. Requisites: course 147A. Laboratory experience in professional duties of assistant stage manager, including participation as assistant stage manager in preproduction, rehearsal, and performance phases of productions. May be repeated once for credit. Letter grading.

174C. Project in Stage Management. (4) Studio, 12 hours. Requisite: course 174A. Laboratory experience in professional duties of stage manager, including participation as stage manager in preproduction, rehearsal, and performance phases of productions. Problems of unions, auditions, organization, scheduling, and responsibilities of lengthy run. May be repeated three times for credit. Letter grading.

174D. Advanced Stage Management Techniques. (2) Lecture, two hours; studio, two hours. Requisites: courses 147A, 147A. Professional duties of stage manager. Practical trajectory through roles, skills, techniques, dry techniques, cue 2 cue, preshow setup, performance reports, and quick change rehearsals. Letter grading.

175A-175B-175C. Summer Theater Workshops. (4 credits; each) Laboratory, 12 hours. Participation in various aspects of theater production and performance. Offered in summer only. Letter grading.

175B. Summer Theater Workshop. (1 to 4) Laboratory, three hours. Participation in various aspects of theater production and performance. Offered in summer only. Letter grading.

C176A-C176B-C176C. Production Practice in Theater with Emerging Technologies I, II, III. (4–4–4) Studio/laboratory, four to six hours. Collaborative creative and technical development of all aspects of theatrical production incorporating emerging technologies and/or advanced technologies, culminating in rehearsal and performance. Offered in summer only. Requisites: courses in cases where multiple quarters are needed to prepare production. Concurrently scheduled with course C476A-C476B-C476C. Letter grading.


M178. Film and Television Acting Workshop. (2) Lecture and lab. Preparation for the film and television industry, four hours. Workshop providing opportunities for students to rehearse, perform, and evaluate scenes. Three different production styles to which performers may be exposed. Two projects (1) is performed in collaboration with director, (2) single-camera experience, and (3) multiple-camera experience. May be repeated twice for credit. Letter grading.
180. Senior Project. (4) Lecture or studio, three hours. Requisites: courses 101A, 101B. Preparation of conceptual or creative project to provide culminating experience in production of creative or research work. May be repeated twice for credit. Letter grading.

181. Career Development for Actors. (2) Lecture, three hours; fieldwork, three hours. Limited to seniors. Study of business practices, career entry, and development of professional acting career. Letter grading.

C185A. Role of Producer in Professional Theater. (2) Lecture, three hours. Study of structure governing economic and artistic decision-making processes in professional theater of America. Concurrency scheduled with course C195P or letter grading.

C185B. Role of Management in Educational and Community Theater. (2) Lecture, three hours. Study of artistic, social, and economic criteria in administration of educational and community theater. Concurrently scheduled with course C205B. P/NP or letter grading.


188A. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Initially scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.


188C. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced corequisite: course 188SB. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course P/NP. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

190. Community or Corporate Internships in Theater, Film, and Television. (2, 4, or 8) Tutorial, eight, 16, or 24 hours. Limited to juniors/seniors. Internship at various theaters, studios, or entertainment organizations accentuating creative contributions, organizations, and work of professionals in their various specialties. Students meet on regular basis with instructor and present and discuss results of their experiences. May be taken for maximum of 8 units. Individual contract with supervising faculty member required. Letter grading.

191. Directed Research or Senior Project in Theater. (2 to 8) Tutorial, to be arranged. Limited to juniors/seniors. Research under guidance of faculty mentor. Supervised individual research or investigation. Culminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses


206. Themes in World Theater and Drama. (5) Seminar, four hours. Designed for graduate students. Selected topics in world theater history, drama, production, and/or architecture organized on thematic basis. May be repeated four times for credit. S/U or letter grading.

208A. Practicum in Dramaturgy. (2 to 12) Laboratory, to be arranged. Requisites: courses 208A, 208B. Demonstration of competence in practice of dramaturgy through completion of approved dramaturgical assignment. May be taken for maximum of 12 units. Letter grading.

210. Topics in World Theater and Drama. (5) Seminar, three hours. Designed for graduate students. Investigation of selected topics in world theater, drama, literature, and theatrical or performance architecture. May be repeated four times for credit. S/U or letter grading.

C212. Emerging Technologies and Their Uses in Live Performance. (4) Formerly numbered C437. Seminar, four hours. Survey of major emerging and contemporary technologies and their potential uses in and impact on live performance, from augmented and virtual reality to electronic textiles, Internet of Things, and Modern artificial intelligence. Offers solid basis for engaging in future collaborations with technologists, for self-study of new technologies, and, for those already more familiar with digital technologies, theorize for engaging with social context of these technologies. Concurrently scheduled with course C112. S/U or letter grading.

216A. Approaches to Representation. (5) Lecture, three hours; laboratory, one hour. Overview of strategies of representation from classical aesthetic theories to postmodern deconstructions of them. May be repeated once for credit. Letter grading.

216B. Approaches to History. (5) Lecture, three hours; laboratory, one hour. Overview of key methodologies, theories, and methods of history of the theatre and performance linked to plays and performances appropriate to approach. Letter grading.

216C. Approaches to Identification. (5) Lecture, three hours; laboratory, one hour. Overview of key theories, methods, debates, and performance texts of identifying the structure between audience member or scholar and theatrical or performance object. Letter grading.

220. Graduate Forum. (1 to 4) Seminar, one to four hours. Limited to 20 students. Preparation and discussion of issues informing and affecting contemporary theater. May be repeated four times for credit. S/U grading.

221. Introduction to Performance Studies. (5) Seminar, three hours. Lecture or performance as sustained practice in traditional disciplines such as theater, music, and dance and as lens to focus thinking about human experience in fields such as philosophy, anthropology, linguistics, education, and law. Emphasis on establishing interdisciplinary dialogue across many fields. Letter grading.

C222. Character Development through Makeup and Hair Design. (2) Studio, four hours. Examination of makeup and hair design in film. History and overview of hair and makeup in fashion and motion pictures. Collaboration of makeup artists and hairdressers with directors, producers, costume designers, and directors to conceptualize people in script. Exploration of makeup artist and hairstylist roles in current film, television, and theater productions and skills needed to design makeup and hair for film and television productions. Concurrently scheduled with course C122. Letter grading.

CM229. Contemporary Topics in Theater, Film, and Television. (2) Same as Film and Television CM229. Lecture, two hours; screenings, two hours. Limited to junior/senior and graduate theater/film and television students. Examination of creative process in theater, film, and television, with consideration of writing, direction, production, and performance. Overview of individual contributions in collaborative effort; examination of distinctiveness and interrelations among these arts. Individual units include participation of leading members of theater, film, and television professions. May be repeated twice for credit. Concurrently scheduled with course CM129. S/U or letter grading.

230A-230B-230C. Writing for Contemporary Theater, Film, and Television. (4) Lecture, two hours; studio, four hours. Designed for graduate students. Letter grading.

230A. One-Act Play. Analysis of strategy and dramatic structure of selected contemporary short plays leading to guided completion and critique of student written one-act plays. 230B. Full-Length Play. Analysis of strategy and dramatic structure of selected contemporary full-length plays leading to guided completion and critique of selected student written full-length plays. 230C. Performance and Text. Exploration of structural strategies, political implications, and technical demands of selected contemporary American plays leading to guided completion and critique of student work.

231. Special Topics in Playwriting. (4) Lecture, three hours. Analysis and practice of various aspects of playwriting. Variable content selected from topics such as comedy writing, docudrama, experimental theater, writing for alternative audiences, or children's theater. May be repeated twice for credit. Letter grading.

232. Manuscript Analysis. (4) Lecture, three hours. Design for graduate students. Critical and constructive study of dramatic techniques as employed by playwrights and screenwriters in selected examples of contemporary work. May be repeated once for credit. S/U or letter grading.

242. Introduction to Design in Production. (4) Lecture or studio, four hours. Introduction to process of design for entertainment, collaborative role of designer, and realization of designs in production. May be repeated once for credit. Letter grading.

243A-243B-243C. Scenic Design. (4–4–4) Studio, four hours. Advanced study and practice in scenic design for theater. Imaginative as impetus for design, text analysis, metaphor, and conceptualization. Investigation of design research process, composition, and style leading to visual presentation of design. May be repeated once for credit. S/U or letter grading.

244A. Advanced Theater Production. (2 to 8) Studio, 12 to 24 hours. Designed for graduate students. Creative participation in preparation and presentation of theatrical production. May be taken for maximum of 8 units. Letter grading.

244B-244B-244C. History of Costume. (4–4–4) Lecture/studio, four hours. Designed for graduate students. Study of history of costume as manifestation of cultural, social, economic, and political influences to provide historical framework and costumes for theater, film, and television. Historical survey and in-depth exploration of selected periods, with study of influences of diverse cultures. Letter grading.

246D. History of Costume Design. (4) Lecture, four hours. Study of history of costume as manifestation of cultural, social, economic, and political influences to provide historical framework for design of costumes for theater, film, and television. Historical survey and in-depth exploration of selected periods, with study of influences of diverse cultures. Letter grading.

250. Directing I. (4) Lecture, four hours; studio, 24 hours. Designed for graduate students. Development of directorial skills of analysis, planning, staging, and controlling through medium of written preparations and directing of scenes. Letter grading.


253. Production Project in Direction for Stage. (2 to 8) Discussion, one hour; studio, 12 to 30 hours. Designed for graduate students. Direction of dramatic works from creative discussion to initial work in progress. May be repeated for maximum of 20 units. Letter grading.
C283D. Directing Project for Stage. (5) Discussion, three hours; laboratory, four to eight hours. Requisites: courses 163A, 163B, 163C. Application of stage di- recting techniques in preparation of problems in project. Students direct one-act play or project. May be repeated once for credit. Concurrently scheduled with course C163D. Letter grading.

264. Directing Classical and Historical Drama. (4) Lecture, three to five hours; laboratory, one hour. Requisites: four to eight hours. Examination of selected plays from different historical periods and cultures, with an emphasis on the theatrical environment in which each play was created. May be repeated once for credit. Letter grading.

265. Modern Theories of Production. (4) Lecture, four hours. Examination of modern theories of production from emergence of director in 19th century to present. Investigation of different responses to prob- lems of creating vital theatrical event in context of on- going evolution of theater as art form. Examination of contribution of significant directors and movements; relation between theater and other forms of representa- tion. Letter grading.

266. Theatrical Conceptualization. (4) Lecture, four hours. Examination of process of conceptualization in dramatic production; centrality of theatrical conceptual- ization in interpretation of dramatic text; exploration of range of possibilities for design of theater spaces and options in design components. Consider- ation of visual arts and music as sources of stimulus for theatrical works; focus on collaborative aspect of theatrical production. Letter grading.

272. Production Practice in Theater, Film, Video, and Digital Media. (1 to 8) Studio, three to eight hours. Production practice for entertainment media, including theater, film, video, and digital media. May be repeated for credit. Letter grading.

C285A. Role of Producer in Professional Theater. (2) Lecture, three hours. Designed for graduate students. Study of structure governing economic and art-istic decision-making processes in professional the-ater of America. Concurrently scheduled with course C185A. S/U or letter grading.

C285B. Role of Management in Educational and Community Theater. (2) Lecture, three hours. De- signed for graduate students. Study of artistic, social, and economic criteria in administration of educational and community theater. Concurrently scheduled with course C185B. S/U or letter grading.

C290A-C290B. Special Studies in Theater Arts. (2 or 4 each) Lecture/discussion, two or four hours. Designed for graduate students in seminar study of a particular theater arts, organized on topical basis. Each course may be repeated once for credit. S/U or letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice per- sonnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guid- ance and supervision of regular faculty member re- sponsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

C404E. History of Design Décor Part I: Architecture and Décor—Antiquity to Early Neoclassical. (4) Lecture, four hours. Requisites: courses 14A, 14B, 14C. Study of pre-Renaissance architectural and interior décor as foundation for Neoclassical, social, economic, and political influences to provide historical framework for design of scenery, costumes, and light- ing for thea- ter, film, and television. May be repeated once for credit. Concurrently scheduled with course C104E. Letter grading.

C404F. History of Design Décor Part II: Architecture and Décor—Industrial Revolution to 21st Century. (4) Lecture, four hours. Requisites: courses 14A, 14B, 14C. Study of post-Renaissance architectural and in-terior décor as manifestation of cultural, social, eco- nomic, and political influences to provide historical framework for design of scenery, costumes, and light- ing for theater, film, and television. May be re- peated once for credit. Concurrently scheduled with course C104F. Letter grading.


420A. Advanced Acting I. (4) Studio, six to 12 hours. Advanced training for actors; challenging body’s core, and energy and concentration needed for per- formance. Deepening awareness of personal, physical idioms, expressions, acting tendencies, and body and breath control. Letter grading.

420B. Advanced Acting I (4) Studio, six to 12 hours. Scene work, usually from 20 to 30 minutes in length. Continuation of work on off-stage preparation, with further development of how actor goes about doing research and fieldwork on character being played. Letter grading.

420C. Advanced Acting for Camera. (4) Studio, six to eight hours. Practice in performance techniques for film and television production. Exploration of language used by actors and directors in film and television production, and subtle differences between acting for stage and camera. Letter grading.

421A. Advanced Acting: Shakespeare. (4 to 8) Studio/laboratory, six to 12 hours. Continuing work on Shakespeare. Class, challenging body’s core, and energy. Text and warm-up exercises also covered. Letter grading.

421B. Advanced Acting: Classical and Historical Drama. (4) Studio/laboratory, six to eight hours. Con- cepts related to Greek choruses and historical plays. Addresses group concentration and communication, choral breathing, awareness of kinetic relationship of performer’s body in space, and relationship of emo- tion to movement, and voice. Letter grading.

421C. Advanced Acting and Craft for Actor. (4) Studio/laboratory, six hours. Advanced acting with focus on craft, inclusive of physicality of thought, de- tails of realism, tempo, shared rhythm and relating movement to text, and audition technique. Letter grading.

422. Advanced Acting for Theater, Film, and Televi- sion. (8 to 12) Studio/laboratory, eight to 12 hours. In- tensive performance experience. May be repeated for maximum of 24 units. Letter grading.

423. Acting for Microphone. (2) Studio/laboratory, three hours. Acting for microphone. May be repeated for credit. S/U grading.


424B. Vowels and Voice Placement. (1) Studio, three hours. Requisite: course 424A. Builds on course 424A. Introduction of vowel diphthongs and triphthongs; de- velopment of forward sound, including consistent thought energy. Exercises to develop, and text to im- plement forward sound, including consistent thought energy. Text and warm-up exercises also covered. Letter grading.


424G. Advanced Vocal Dynamics. (1) Studio, three hours. Extended range, resonance, and vocal power in support of clear, forward speech. Further fluency with vocal resonance in relation to acoustical properties of performance spaces. Using vivid vocal engagement to support dynamic expression of demanding texts, with attention to varieties of tempo, volume, pitch, reso- nance, range, etc. Letter grading.


424L. Phonicets, Dialects, and Accents. (1) Studio, three hours. Use of phonetics to enhance actor’s ability to create character using dialect and accents. Culininating dialect presentation project required. Letter grading.

424J. Acting for Microphone. (2) Studio, four to six hours. Techniques including textual analysis and char- acter work in art and craft of acting for microphone. Letter grading.

425A. Advanced Movement I. (2 or 4 each) Studio/labora- tory, three to six hours. Discovery of body’s unique language through exercises designed to explore and free total instrument. Development of flexible actor with range, expression, and confidence physically. May be repeated for maximum of 12 units. Letter grading.

425B-425C. Advanced Movement I. (2 or 4 each) Studio/laboratory, three to six hours. Discovery of body’s unique language through exercises designed to explore and free total instrument. Development of flexible actor with range, expression, and confidence physically. May be repeated for maximum of 12 units. Letter grading.

425D. Advanced Training Intensive. (2) Studio, 12 to 15 hours per week for four weeks. Advanced training class, challenging body’s core, energy, and concentra- tion needed for performance. Deepening awareness of movement, and physical idioms and acting tenden- cies, body and breath control. May be repeated once for credit. Letter grading.
425E. Advanced Conditioning and Combat for The-ater, Film, and Television. (2) Studio, six hours. Body conditioning, basic striking skills, tumbling, breakfalls, re-directing energy, stunts, gymnastics, martial arts, use of weapons, and integration of skills in perform-ance contexts. Letter grading.

425F. Advanced Movement II. (2 or 4) Studio/labora-tory, three to six hours. Presentation of more complete picture of body mechanics, movement, dance, and its relationship to the actor, music, and dance. Advancement of physical training of individual actors to their maximum poten-tial. Experience in techniques and discovery of origins of variety of acrobatic and dance disciplines, including ballet, balleto, period dance, and circus techniques. Letter grading.

425G-425H-425I. Advanced Movement III. (2 or 4 each) Studio, three to six hours. Advanced physical training and research for movement, dance, or combat discipline: capoeira, martial arts, ballet, balli-room, period dance, circus techniques. Letter grading.

426A-426B-426C. Alexander Techniques. (2 or 4 each) Studio, three to six hours. Study and practice in Alexander techniques as method of developing bal-ance, poise, and coordination of body and mind. Explo-ra-tion of use of rhythm to expand movement poten-tial of actors and relevant use of visual arts and an-imal studies to develop an understanding of movement and to expansion of movement potential. Letter grading.

430A-430B-430C. Advanced Studies in Playwriting. (4 to 8 each) Lecture, three hours. Limited to MFA playwriting students. Guidance and instruction in the refinement and adaptation of full-length scripts for stage. S/U or letter grading.

431. Special Topics in Playwriting. (4) Discussion, three hours. Advanced study and practice of playwriting program students. Analysis and practice of varied aspects of playwriting’s art. Variable content selected from topics such as comedy writing, docudrama, writing for alter-native audiences, adaptation from stage to screen, children’s theater, or improvisational techniques. May be repeated for credit. S/U or letter grading.


433A. Script Development Workshops. (4 to 8) Lecture, three hours; studio, four to 24 hours. Desig-nated projects. Guided process of script development, with emphasis on communica-tion, artistic growth, and professional process. May be taken for maximum of 8 units. Concurrently scheduled with course C435A.

433B. Script Development Workshop. (4 to 8) Lecture, three hours; studio, four to 24 hours. Desig-nated projects. Guided process of script develop-ment, with emphasis on communication, artistic growth, and professional process. May be taken for maximum of 8 units. Letter grading.


441A. Lighting Design. (4) Lecture/studio, four hours. Study of use of light and color to create space, effect of light on scenery and costumes, lighting for arena/ thrust theaters, multiscreen productions, lighting pat-terns, and moving scenery. May be repeated once for credit. Letter grading.

441B. Lighting Design. (4) Lecture/studio, four hours. Study of use of light and color to create space, effect of light on scenery and costumes, lighting for arena/thrust theaters, multiscreen productions, lighting pat-terns, and moving scenery. May be repeated once for credit. Letter grading.


441D. Scenic Projection and Media Techniques. (4) Lecture/laboratory, four hours. Designed for graduate students. Advanced study and practice in scena-projection design, including emphasis on research and design, and execution of theatrical projection and photographic technique for stage. May be repeated once for credit. S/U or letter grading.

442A-442B-442C. Costume Design. (4–4–4) Lecture/ studio, four hours. Study and practice in costume design for theater. Investigation as impetus for design, text analysis, metaphor, and conceptualiza-tion. Investigation of design research process, period style, and chart creation leading to visualization of design. Study of costume design for thea-trical productions, ballet, opera, and musical theater. Each course may be repeated once for credit. Letter grading.

443A-443D. Advanced Scenic Design. (4 each) Study, four hours. Advanced study and practice of scenic design for theater, with emphasis on cultivating imagination as impetus for design, text analysis, metafor, and conceptualization. Investigation of design research process, composition, and style leading to visual presentation of design, as well as exploration of students’ individual cognitive and artistic process and refinement of the course material. May be repeated twice for credit. S/U or letter grading.

445A-445B-445C. Production Design for Film, Tele-vision, and Entertainment Media. (4–4–4) Lecture/ studio, four hours. Study and practice in design of scena-projection and entertainment media, including effects of differing media on design choices, role of production designers and art direc-tors, and design for single- and multiple-camera pro-ductions. Each course may be repeated once for credit. Letter grading.

446A-446B. Art and Process of Entertainment Design. (4–4) Lecture, three hours. Conceptualiza-tion, design, and prototyping of interactive theatrical events. Concurrently scheduled with courses C416A- C416B. Letter grading. C446A. Exploration of original forms of media-rich entertainment experience through lectures and the development of a live performance. Students form collaborative teams to conceive and propose interactive entertainment events. C446B. Prototype development; two to five proposals to be more completely defined and developed. Students form collaborative teams for further conceptual develop-ment of their project proposals. May be repeated once for credit.

446A-446B-446C. Costume Design for Film, Televi-sion, and Entertainment Media. (4–4–4) Lecture/studio, four hours. Study and practice in design of costumes for live and virtual characters in film, television, and entertainment media, including effect of differing media on design process. Design projects 446A and 446B may be repeated once for credit; course 446C may be repeated twice for credit. Letter grading.

448B. Deconstructing Glamour. (4) Lecture, three hours; screenings, two hours. Exploration of integra-tion of costume design into filmmaking process and illu-mination of work required to bring characters from written page to life. Letter grading.

449A. Design Thesis Preparation. (2) Lecture/studio, four hours. Design selected projects that will pre pare design students for thesis examination. In Prog-rесс grading (credit to be given only on completion of courses 449B and 449C).

449B. Design Thesis Preparation. (2) Lecture/studio, four hours. Design selected projects that will pre pare design students for thesis examination. In Prog-rесс grading (credit to be given only on completion of course 449C).

450. Design Thesis Project. (4) Lecture/studio, four hours. Series of group design projects that will pre pare design students for thesis examination. In Prog-rесс grading (credit to be given only on completion of course 449C).

451A. Design Thesis Project. (4) Lecture/studio, four hours. Series of group design projects that will serve as comprehensive examination for MFA degree in enter-tainment design. Review and evaluation of projects by design faculty members from all areas of curriculum. Letter grading.

451B. Design Thesis Project for Theater, Film, and Tele vision. (4) Lecture/studio, four hours. Four costume design students. One major scenography design project that serves as comprehensive exami-nation for MFA degree in entertainment design. Re-view and evaluation of projects by design faculty members from all areas of curriculum. May be repeated once for credit. Letter grading.


451D. Design Thesis Project for Theater. (4) Lecture/studio, four hours. Study of visual presentation of design for MFA degree in entertainment design. May be repeated once for credit. Concurrently scheduled with course C151B. Letter grading.

452A. Lighting Design. (4) Lecture/studio, four hours. Study of lighting, with emphasis on design, text analysis, metaphor, and conceptualization. Investigation of composition and control of light and color in relation to actor. May be repeated once for credit. Concurrently scheduled with course C152A. Letter grading.

452B. Lighting Design for Stage. (4) Lecture/ studio, four hours. Study of lighting design for proscenium, thrust, and arena configurations, multiscreen productions, and concert theater. May be repeated once for credit. Concurrently scheduled with course C152B. Letter grading.


452D. Lighting Design for Performance and Special Events. (4) Lecture, four hours. Requisites: courses C452A, C452B, C452C. Advanced topics in lighting design, including live performances for concerts, exhibits, and live events. Concurrently scheduled with course C152D. Letter grading.

452E. Lighting Design for Dance. (4) Lecture, four hours. Requisite: course C441A, C441B, or C441C. Advanced topics in lighting design, concentrating on live performance. May be repeated twice for credit. Concurrently scheduled with course C152E. Letter grading.

453A. Costume Design. (4) Lecture/studio, four hours. Investigation as impetus for design, text analysis, metafor, and conceptualization. Investigation of design research process, composition, and style leading to visual presentation of design. May be repeated twice for credit. Concurrently scheduled with course C153A. Letter grading.

453B. Costume Design for Theater. (4) Lecture/ studio, four hours. Study of costume design for proscenium, thrust, and arena configurations, multiset productions, and music theater. May be repeated twice for credit. Concurrently scheduled with course C153B. Letter grading.

453C. Costume Design for Film and Television. (4) Lecture/studio, four hours. Study of current profes-sional costume design and wardrobe practices in film and television, including effect of differing media on design choices. May be repeated twice for credit. Concurrently scheduled with course C153C. Letter grading.

453D. Projects in Costume Design Management. (4) Lecture, three hours. Examination of professional duties of costume designers, set costumers, and su-pervisors, especially management of production logistics, including but not limited to costume breakdowns, construction budgets, and setting up and running them, as well as set costumer training for film and television, practicing on-set protocol, breakdown of daily respon-sibilities, and assembling set costumer kits ready for production. Practice with professional responsibilities to move from abstract to substantive problem solving, maintaining creative and collaborative environment
while adhering to logistical obstacles and tasks. Concurrently scheduled with course C153D. Letter grading.

C453E. History of Costume Design in Movies. (4) Lecture, three hours; screenings, two to six hours. History of costume design within context of 20th-century fashion and film history, including evolution of role of costume designer since early days of film industry. Role of costume designer and contribution of costume design to cinematic storytelling. Concurrently scheduled with course C153E. Letter grading.

C453F. Practice of Costume Design for Film Productions. (4) Lecture, three hours. Introduction to costume design as integral aspect of filmmaking, emphasizing role of costume designer in the development and implementation of costume design. May be repeated twice for credit. Concurrently scheduled with course C153F. Letter grading.

C455C. Graphic Representation of Design: Digital Rendering. (4) Studio, four hours. Study of contemporary computer-generated process in rendering costumes, lighting, and scenic elements with combination of hand and digital rendering techniques. Coverage of rendering from life, enhancing final look, and computer-generated renderings to create polished sophisticated presentations for theater, film, and television productions. May be repeated twice for credit. Concurrently scheduled with course C155CG. Letter grading.

C455D. Graphic Representation of Design: Model Making. (2) Studio, four hours. Course: 147A or 147B. Study of model for representation of scenic designs from initial working prototypes to finished color models. Use of a wide variety of materials and techniques for execution of model. Graduate students expected to produce models demonstrating higher level of proficiency and skill. Concurrently scheduled with course C155DG. Letter grading.

C455E. Graphic Representation of Design: Life Drawing. (2) Studio, four hours. Course: 147A or 147B. Study and practice in drawing of human form. May be repeated twice for credit. Concurrently scheduled with course C155EG. Letter grading.

C454A. Sound Design. (4) Lecture/studio, four hours. Study of current professional sound recording, re-recording, mixing, and synchronization practices for film and television. Concurrently scheduled with course C154C. Graduate students expected to produce designs demonstrating higher level of proficiency and skill. Letter grading.

C454B. Sound Design for Musicals. (4) Lecture/studio, four hours. Exploration of sound design for theater and techniques for mixing, reinforcement, and signal processing. Use of delay, equalization, and microphone placement for theater sound reinforcement with focus on mixing musicals. Covers paperwork needed to complete show. Tuning space, equalization, and advanced projects involving programming and mixing on various consoles. May be repeated once for credit. Concurrently scheduled with course C154BG. Letter grading.

C454C. Sound for Film and Television. (4) Course C154B. Letter grading. Requisite: concurrently scheduled with course C154C. Graduate students expected to produce designs demonstrating higher level of proficiency and skill. Letter grading.

C454G. Music Technology for Sound Design. (4) Lecture/studio, four hours. Study of current professional sound recording, re-recording, mixing, and synchronization practices for film and television. Concurrently scheduled with course C154G. Graduate students expected to produce designs demonstrating higher level of proficiency and skill. Letter grading.


C455A. Graphic Representation of Design: Perspective Drawing. (2) Studio, four hours. Requisite: course 147A or 147B. Introduction to use of pencil and pen to communicate scenic designs, including one- and two-point perspective, form light, shade, and textures. Graduate students expected to produce drawings demonstrating higher level of proficiency and skill. Concurrently scheduled with course C155AG. Letter grading.

C455B. Graphic Representation of Design: Multimedia Rendering. (2) Studio, four hours. Study and practice of multimedia rendering as they apply to interpretation of scenic, lighting, and costume renderings, with focus on human form in space. Weekly demonstrations of wide variety of art media, including watercolor, markers, pastel, and collage rendering. May be repeated twice for credit. Concurrently scheduled with course C155BG. Letter grading.

C456G. Virtual Reality Rendering for Film. (2) Studio, four hours. Requisites: courses C455C, C455H, C456A, C456B, C456C. Preparation: basic 3D modeling and rendering skills. Students learn how to translate game engine models into Unreal engine environment and utilize this platform as powerful tool for development, presentation, and staging of film and theater set design. Students practice designing and building scenes in Unreal engine, but are also introduced to Zbrush, Blender, Quixel, and other ancillary resources. Concurrently scheduled with course C156G. Letter grading.


457D. Advanced Historical Costume Interpretation and Construction. (4) Lecture/studio, four hours. In-depth costume construction and presentation of one renowned artwork and as intrinsic element of art history to gain expertise in costume and pattern making, while creating half-scale costume inspired by masterwork and to gain familiarity with artist’s life and social milieu. Letter grading.


C459A-459B. Directing for Theater, Film, and Television. (4-4) Lecture, three hours. Limited to graduate theater students. Analyzes and presents specific scenes, of differences and many similarities in directorial approach to same literary material in three media. S/U or letter grading.

460AF-460AW-460AS. Contemporary Issues in Direction. (1–1–1) Discussion, three hours. Designed for graduate students. Discussion of role of director in contemporary professional practice. Review discussion and critique of directing projects. Each course may be repeated for a maximum of 4 units. Letter grading.

462. Advanced Directing. (8 or 12) Studio, 12 or 30 hours. Designed for graduate students. Advanced problems in directing for theater, film, and television. May be repeated for maximum of 24 units. Letter grading.

463. Production Project in Direction for Stage (8 or 12 units). Studio, 24 hours. Designed for graduate students. Creative participation and design of conception and preparation of dramatic work. Letter grading.

472. Production Practice in Theater, Film, Video, and Digital Media. (1 to 8) Studio, three to eight hours. Exploration and laboratory work in various aspects of production and postproduction practice for entertainment media, including theater, film, video, and digital media. May be repeated for a maximum of 24 units. Letter grading.
474. Advanced Projects in Design and Production. (4) Lecture/studio, four hours. Study and practice in preparation and execution of designs for theater, film, video, and entertainment forms. As contributing artistic member of design team, creative responsibilities include designer, technical supervisor, or production manager. May be repeated for maximum of 16 units. Letter grading.

475A. Graduate Design Portfolio Project: Scenic Design. (2) Lecture, four hours; studio, four to eight hours. Preparation: at least six master scenic design courses. Preparation of complete designs and drawings for theatrical, film, operatic, and theoretical productions and assembling of design portfolio and résumé. Information about industry demands and protocol for portfolio presentation and review, with projects prepared under guidance of respective design faculty adviser. Letter grading.

475B. Graduate Design Portfolio Project: Lighting Design. (2) Lecture, four hours; studio, four to eight hours. Preparation: at least six master lighting design courses. Preparation of complete designs and drawings for theatrical, film, operatic, and theoretical productions and assembling of design portfolio and résumé. Information about industry demands and protocol for portfolio presentation and review, with projects prepared under guidance of respective design faculty adviser. Letter grading.

475C. Graduate Design Portfolio Project: Costume Design. (2) Lecture, four hours; studio, four to eight hours. Preparation: at least six master costume design courses. Preparation of complete designs and drawings for theatrical, film, operatic, and theoretical productions and assembling of design portfolio and résumé. Information about industry demands and protocol for portfolio presentation and review, with projects prepared under guidance of respective design faculty adviser. Letter grading.

476A-C. Production Practice in Theater with Emerging Technologies I, II, III. (4-4-4) Studio/laboratory, four to six hours. Collaborative creative and technical development of all aspects of theoretical production incorporating emerging and/or advanced technologies, culminating in rehearsal and public presentation. Offered as series of up to three courses in cases where multiple quarters are needed to prepare production. Concurrently scheduled with course C176A-C176B-C176C. Letter grading.

495A-495B-495C. Practicum and Practice in Teaching Theater. (2-2-2) Seminar, to be arranged; discussion, two hours. Study and practice of teaching theater at university level. Orientation and preparation of graduate (PhD) students who have responsibility to assist in teaching undergraduate courses in department. Discussion of problems common to teaching experience. S/U or letter grading.

498. Professional Internship in Theater, Film, and Television. (4, 8, or 12) Tutorial, to be arranged. Full- or part-time at studio or on professional project. Internship is available in film, television, or theater facilities accentuating creative contribution, organization, and work of professionals in their various specialties. Given only when projects can be scheduled. S/U or letter grading.

501. Cooperative Program. (2 to 8) Tutorial, to be arranged. Preparation: consent of UCLA graduate adviser and graduate dean, and host campus instructor; department chair, and graduate dean. Used to record enrollment of UCLA students in courses taken under cooperative arrangements with USC. S/U grading.

596A. Directed Individual Studies: Research. (2 to 12) Tutorial, to be arranged. Designed for graduate students. May be repeated with consent of instructor. S/U or letter grading.

596B. Directed Individual Studies: Writing. (2 to 12) Tutorial, to be arranged. Designed for graduate students. May be repeated with consent of instructor. S/U or letter grading.

596C. Directed Individual Studies: Directing. (2 to 12) Tutorial, to be arranged. Designed for graduate students. May be repeated with consent of instructor. S/U or letter grading.

596D. Directed Individual Studies: Design. (2 to 12) Tutorial, to be arranged. Designed for graduate students. May be repeated with consent of instructor. S/U or letter grading.

596E. Directed Individual Studies: Acting. (2 to 12) Tutorial, to be arranged. Designed for graduate students. May be repeated with consent of instructor. S/U or letter grading.

596F. Directed Individual Studies: Production. (2 to 12) Tutorial, to be arranged. Designed for graduate students. May be repeated with consent of instructor. S/U or letter grading.

597. Preparation for PhD Qualifying Examinations in Theater Arts. (2 to 12) Tutorial, to be arranged. Writing of prospectus and three reading lists. May be repeated for credit. S/U grading.


Learning Outcomes
The Individual Field major has the following learning outcomes:
- Development of individualized course of study
- Demonstrated competency in discourse of disparate disciplines on which the major draws
- Completion of capstone project or thesis that synthesizes coursework into a culminating project
- Demonstrated competency in the literature and/or artistic traditions pertinent to chosen course of study

UNIVERSITY STUDIES
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University Studies
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David W. MacFadyen, PhD (Comparative Literature, Musicology)
Elizabeth A. Marchant, MA (Comparative Literature, Gender Studies)
Muriel C. McClendon, PhD (History)
William I. Newman, PhD (Earth, Planetary, and Space Sciences; Mathematics; Physics and Astronomy)

THEATER, FILM, AND TELEVISION SCHOOLWIDE PROGRAMS
School of Theater, Film, and Television
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Student Services Office
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Overview
Highly motivated students in a School of Theater, Film, and Television major who find that no single major accommodates their specific interest in a given subject may propose designing their own major. Proposals are prepared with faculty guidance and sponsorship and are thoroughly examined for cogency, completeness, and academic merit.

Undergraduate Major
Individual Field BA in Theater, Film, and Television

Highly motivated students in a School of Theater, Film, and Television major who find that no single major accommodates their specific interest in a given subject may propose designing their own major. Proposals are prepared with faculty guidance and sponsorship and are thoroughly examined for cogency, completeness, and academic merit.

The student, in consultation with the faculty adviser, develops an individualized plan for a course of study that either combines two or more fields or creates a wholly new field. This plan cannot replicate any existing UCLA undergraduate majors.

University Studies
Lower-Division Courses

10A. ACE UCLA | Critical Strategies to Achieve Undergraduate Excellence (First- and Second-Year Students). (2) Seminar, two hours. Not open for credit to students with credit for course 10B, 10C, 10D, 10E, 10F; or former course 10. Imparts students with critical strategies to achieve undergraduate excellence at top-tier research institution. Study of research university’s mission, rigor, and expectations of students, as well as its pedagogical implications. Cultivation of formal space on campus where UCLA students learn to engage collaboratively with their diverse community of scholars; to comprehend and apply effective learning strategies and theoretical foundations of college stu-
10F. ACE UCLA | Critical Strategies to Achieve Undergraduate Excellence for Humanities Students. (2) Seminar, two hours. Not open to students who have completed University Studies 10A, 10B, 10C, 10D, 10E, or former course 10. Designed for first-year students. Study of research university’s history, mission, rigors, expectations of students, and pedagogical implications. Cultivation of formal space on campus where UCLA students learn to explore major in humanities and identify transferable skills; to engage collaboratively with their diverse community of scholars; to comprehend and apply effective learning strategies and theoretical foundations of college student development; to navigate complex structure of UCLA; to practice resilience and growth mindset; to think critically about diversity and their identity; and to be fully aware of their value to intellectual fabric of institution as contributors to innovative research and scholarship. P/NP grading.

15A. Collaborative Learning Workshops for Humanities and Social Sciences Majors. (2) Seminar, two hours. Designed for students in First Year Scholars Program (FYSP). Part I of three-part series of collaborative learning and community-building work sessions. Collaborative work spaces and participatory learning environments are integral component of student development. Creates specific and unique space for FYSP scholars to cultivate community and support, as well as develop critical strategies to achieve undergraduate excellence at top-tier institution. Engages students collaboratively with diverse community of scholars; supports their understanding and application of effective learning strategies; guides students in practice growth mindset, navigation of complex structure of UCLA; thinking critically about diversity and their identity, and being fully aware of their value to intellectual fabric of institution as contributors to innovative research and scholarship. P/NP grading.

15B. Collaborative Learning Workshops for Humanities and Social Sciences Majors. (2) Seminar, two hours. Requisite: course 15A. Designed for students in First Year Scholars Program. Workshops are integral component of student learning and development. Continues to cultivate learning communities. Workshops prepare students for second year, as they become more intentionally engaged in academic community, at UCLA and beyond. Workshops foster academic, professional, and personal development of students majoring in humanities and social sciences. Instructors, peer mentors, and campus partners facilitate interactive workshops that help students transition to, engage with, and navigate UCLA as they cultivate their first year at university. P/NP grading.

15C. Collaborative Learning Workshops for Humanities and Social Sciences Majors. (2) Seminar, two hours. Requisite: course 15B. Designed for students in First Year Scholars Program (FYSP). Part III of three-part series of collaborative learning and community-building work sessions. Students work together on ongoing research proposal and project presented at culmination of program. Collaborative work spaces and participatory learning environments are integral component of student development. Creates specific and unique space for FYSP scholars to cultivate community and support, as well as develop critical strategies to achieve undergraduate excellence at top-tier institution. Engages students collaboratively with diverse community of scholars; supports their understanding and application of effective learning strategies; guides students in practice growth mindset, navigation of complex structure of UCLA, thinking critically about diversity and their identity, and being fully aware of their value to intellectual fabric of institution as contributors to innovative research and scholarship. P/NP grading.

30. How to Succeed at UCLA: Retention. (2) Seminar, two hours. Limited to students in Bruin Readmission Program. Designed to provide students who are working toward readmission critical understanding of how they and others arrive at their dismissal status and steps they can take that lead to academic success in future. Examination of research on retention and departure in higher education and both individual and collective strategies for academic success. P/NP grading.

Graduate Course

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

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Michael K. Manville, PhD, Chair

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Dana Cuff, PhD
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Anastasia Loukaitou-Sideris, PhD
Michael K. Manville, PhD
Adam S. Millard-Ball, PhD
Paavo Monkkonen, PhD
Vinícius Mukhi, PhD
Ananya Roy, PhD (Meyer and Renee Luskin Professor of Inequality and Democracy)
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Kian Goh, PhD
Veronica Herrera, PhD
Michael C. Lens, PhD
Kirsten Schwarz, PhD
V. Kelly Turner, PhD

Assistant Professors
Elizabeth C. Koslov, PhD
José Loya, PhD
Marques A. Vestal, PhD
Overview

The professional urban planner works on the creation and management of the urban environment, including its physical, economic, and social elements. Housing, transportation, air and water quality, the preservation of historic communities, and the development of community-level economic and employment programs are some of the tasks undertaken by recent graduates of the Department of Urban Planning.

The department takes pride in its collegial atmosphere. It features a lively mix of students from diverse academic backgrounds, drawn from many foreign countries and from every avenue of American life. It includes many members of racial and ethnic minority groups, and more than half the students are women. Student organizations provide an interesting program of extracurricular activities.

Career Prospects

Graduates have taken positions in local, state, and national governments, and increasingly with nonprofit and private companies whose products and services affect the urban environment. While most UCLA graduates find positions in the U.S., the program offers the opportunity to specialize in development planning abroad, including rural development, and many graduates have found positions in Latin America, Africa, and Asia.

Undergraduate Minor

Urban and Regional Studies Minor

The scale, diversity, balkanized governance, and natural environment of Southern California all contribute to making it an extraordinary natural laboratory for learning about urban and regional issues, whether the focus is on immigration, employment, the built environment, transportation, poverty, natural resources, or a host of other challenges. The Urban and Regional Studies minor offers undergraduate students a means to address some of these issues from an interdisciplinary perspective, giving a balanced mixture of theory, practice, and service learning courses.

Admission

To enter the minor, students must be in good academic standing with an overall grade-point average of 2.0 or better, have completed 90 or more units, and complete either Urban Planning M120 (or Public Affairs M109) or 121 with a grade of C or better. An introductory course in a grade of C or better. Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Majors

Master of Urban and Regional Planning

Requirements

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Concurrent Degree Programs

Concurrent degree programs allow students to reduce the number of courses required for two degrees, since some courses may apply to both degrees.

- Master of Urban and Regional Planning/Community Health Sciences Master of Public Health
- Master of Urban and Regional Planning/Environmental Health Sciences Master of Public Health
- Master of Urban and Regional Planning/Juris Doctor
- Master of Urban and Regional Planning/Latin American Studies MA
- Master of Urban and Regional Planning/Master of Architecture
- Master of Urban and Regional Planning/Master of Business Administration

Upper-Division Courses

M110. Inequality and Democracy: Analysis and Praxis of Public Problems. (4) (Same as Social Welfare M110.) Lecture, three hours; discussion, one hour. Analysis and praxis of public problems. Taking up case of persistent inequality in liberal democracies, coverage of key frameworks and methodologies for understanding and analyzing poverty and inequality and examination of forms of action. Tense role of government to social movements, that seek to intervene in such problems. Study of problems, programs, policies, and politics in globally interconnected, transnational world, while avoiding analytical divide between global north and global south. Letter grading.

M120. Introduction to Cities and Planning. (4) (Same as Public Affairs M109.) Lecture, three hours; discussion, one hour. Survey of urban history and evolution in U.S., urban social theory, current growth trends,
121. Urban Policy and Planning. (4) Lecture, three hours. Examination of current urban planning and policy issues and debates, such as normative theories of good urban form, metropolitan organization and governance, economic development and growth management, edge cities, spatial mismatch hypothesis, urban poverty, racial/ethnic inequality, gender and urban structure, sustainability, and future of cities. P/NP or letter grading.

M122. Policy, Planning, and Community. (4) (Same as Asian American Studies M108.) Lecture, three hours; field laboratory. Project-oriented methods course on conducting needs assessment in Asian American communities. Geographical information systems to be used to define problems and needs. Letter grading.

129. Special Topics in Urban Policy and Research. (4) Lecture, three hours. Examination of particular composition, and review of (e.g. conflicting portrayals of) environmental planning, housing and community development, international planning and development, land use, or urban design in some depth. Specific topic area to be determined by instructor. May be repeated for credit, with topic change. P/NP or letter grading.

130. Fundamentals of Urban and Regional Economies. (4) (Formerly numbered 185SL.) Lecture, three hours. Introduction to regional economy, with emphasis on Los Angeles. Key economic sectors, labor market opportunities, and implications for decision making. Understanding of economic forces acting on urban areas. Basic concepts related to location choice, agglomeration effects, economies of scale, and specialization of cities and city regions. P/NP or letter grading.

CM137. Southern California Regional Economy. (4) (Same as Labor Studies M180.) Lecture, three hours. Introduction to regional economy, with emphasis on Los Angeles. Key economic sectors, labor market opportunities, and implications for decision making. Understanding of economic forces acting on urban areas. Basic concepts related to location choice, agglomeration effects, economies of scale, and specialization of cities and city regions. P/NP or letter grading.

M140. Issues in Latina/Latino Poverty: Mexican and Central American Voices from Los Angeles. (4) (Same as Chicana/o and Central American Studies M121 and Labor Studies M121.) Lecture, four hours. Examination of key issues of race, ethnicity, gender, disability, and class in Los Angeles, with emphasis on understanding social, economic, and political processes that shape the lives and works in practice and how it might be improved. Letter grading.

M165. Environmentalism: Past, Present, and Future. (4) (Same as Geography M125.) Lecture, three hours; discussion, one hour. Exploration of history and origin of major environmental ideas, movements or countermovements they spawned, and nature of modern environmentalism. Introduction to early ideas of environmentalism, how rise of modern sciences reshaped environmental thought, and how this was later transformed into 19th-century nature of American conservation movements. Review of politics of American environmental thought and contemporary environmental questions as they relate to broader set of questions about natural resources, sustainability, and equity in environmental debate. Exploration of issues in broad context, including global climate change, rise of pandemics, deforestation, and environmental justice impacts of war. Letter grading.

CM166. Global Environment and Development: Problems and Issues. (4) (Same as Geography M127.) Lecture, three hours; discussion, one hour. Designed for juniors/seniors. Questions of population, resources, and environment. Analysis of global environmental restructuring and its connections to changing organization of production and resulting environmental impacts. Case studies from Asia, Latin America, and U.S. concurrently scheduled with course C266. P/NP or letter grading.

M167. Environmental Justice through Multiple Lenses. (4) (Same as Environment M167 and Public Affairs M166.) Lecture, three hours. Examination of intersection between race, economic class, and environment in U.S., with focus on issues related to social justice. Because environmental inequality is highly complex phenomenon, multidisciplinary and multi-population approach taken, using alternative ways of understanding, interpreting, and taking action. P/NP or letter grading.

M169. Politics of Water. (4) (Same as Public Affairs M159.) Lecture, three hours; discussion, one hour. Access to safe and sustainable water provision is major challenge for governments. Examination of political, economic, and social dimensions of water provision in Asia, Africa, Latin America, and U.S. Includes water and state building, market reforms and globalization, social mobilization, and citizen demand making strategies, role of crisis in citizen claims making. Letter grading.

M171. Planning Issues in Latino/Latino Communities: Preserving and Strengthening Community Assets in Mexican and Salvadoran Los Angeles. (4) (Same as Chicana/o and Central American Studies M122 and Labor Studies M122.) Lecture, four hours. Examination of key issues of race, ethnicity, gender, disability, and class in Los Angeles, with emphasis on understanding social, economic, and political processes that shape the lives and works in practice and how it might be improved. Letter grading.

M164A. Documentary Production for Social Change: Mobility in Los Angeles. (4) (Same as Disability Studies M164A.) Seminar, three hours; fieldwork, three hours. Exploration of documentary filmmaking as catalyst for social change, using daily commute in Los Angeles as case study. Introduction to issues of race, ethnicity, gender, disability, and class in experiences of commuting, access to public transportation, and car-based versus alternative (bike and pedestrian) forms of commuting. Exposure to observational, interview-based, and participatory documentary shooting and editing techniques, as well as social marketing strategies that are vital to documentary production and distribution. Letter grading.

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188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SB. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to finalize course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced corequisite: course 188SB. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE 88S course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors and department honors programs. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

195. Course in Urban Planning. (4) Tutorial, 12 hours. Limited to junior/senior Urban and Regional Studies minors. Internship in supervised setting in community agency or urban planning setting. Students will develop regular practice with instructors to provide periodic reflection of their experience. May be repeated for credit. Individual contract with supervising faculty member required. P/NP or letter grading.

196. Directed Research in Urban Planning. (2 to 8) Tutorial, three hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. CULminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

M201. Theories of Architecture. (4) Same as Architecture and Urban Design M201.) Lecture, three hours. Exploration of conceptual and historical structures that shape current issues in architectural theory. Readings in primary texts serve as framework for understanding such theories, and as an intensive inquiry in archetypal tural context. Letter grading.

M202A-B. Land Use. (202A: 3 or 4/202B: 1 or 2) Lecture, three hours. Course 202A is enforced requisite to 202B. Exploration of 21st-century land-use public controls, private practice, and litigation in California from basic planning, zoning, subdivision controls, and official mapping to regional growth management, environmental analysis, and land protection. Concurrently scheduled with Law 286. In Progress (202A) and S/U or letter (202B) grading.

M203. Housing Segregation, Housing Discrimination, and Evolution of Public Policy. (1 to 8) (Same as Law M256E) Seminar, three hours; two field trips. Consideration of selected aspects of housing law and policy, including current federal and state housing subsidies; remedies of housing consumers; impacts of market discrimination against children, racial minorities, and women; and local governmental laws influencing cost and supply, such as anti-discrimination laws and rent control legislation. Catalytic role of economic and community development in expansion of housing supply also considered. In Progress (M203A-203B) and letter (203B) grading.

M204. Research Design and Methods for Social Policy. (4) (Same as Public Policy M218.) Lecture, three hours; outside study, nine hours. Limited to graduate students. Review of research design and consumer and producers of qualitative and quantitative policy research. In first half of course, formal principles of research design; in second half, various data collection methods, analysis, and interpretation, and survey design. Letter grading.

M205A-B. MURP Comprehensive Examination: Applied Planning Research Project I, II. (4–4) Required of all students completing applied planning research project MURP comprehensive exam capstone option. Letter grading. 205A. Seminar, three hours. Guides students through identifying topics, selecting scope of work and memorandum of understanding with clients, completing research design and literature review portions of applied planning research project, and collecting data. 205B. Seminar, three hours; discussion, one hour. Guides students through completion of data collection, analysis, findings, conclusions, and recommendations portions of applied planning research project. Preparation of executive summary and poster synthesizing their work.

M206. Introduction to Geographic Information Systems. (4) Lecture, one hour; laboratory, two hours. Practice-oriented study using Esri/ArcGIS. Survey and overview of spatial database technologies and data analysis, management, and visualization. Students are guided through series of exercises and assignments to build higher levels of spatial understanding and experience. Use of laboratory exercises, book exercises, and project to help illuminate principles and teach useful skills. Discussion of three major themes: spatial analysis, data management, design and visualization. Letter grading.

M207. Applied Microeconomics for Urban Planning. (4) Lecture, three hours; laboratory, 90 minutes. Preparation: passing score on microeconomics examination given first day of class. Practical use of economic concepts in urban planning. Topics include: theory and measurement of externalities, income distribution, and economic growth. Topics include: behavior, efficiency, public goods and free rider problem, environmental pricing, public service pricing, and conflicts between individual and collective rationality. Letter grading.

M208A. Introduction to Luskin PhD Research. (4) (Formerly numbered 207A.) (Same as Social Welfare M247A) Lecture, two hours; outside study, five to 10 hours. Required of first-year PhD students. Introduction to design and execution of public affairs research; exploration of subfields of public affairs scholarship and approaches to research on contemporary topics in social welfare and urban planning. Preparation and filing of PhD program of study. Letter grading.

M208B. Logic of Inference and Causation. (4) (Formerly numbered 207B.) (Same as Social Welfare M248C.) Seminar, three hours. Required: courses M208A, M208D. Required in first or second year of PhD program. Development of researchable hypotheses and accompanying research design strategies, understanding of causal inquiry, review of critiques of traditional methods and of alternative approaches to scholarship. Letter grading.

M209C. Applied Research Design: Dissertation and Thesis Proposal. (4) (Formerly numbered 208C.) (Same as Social Welfare M252.) Seminar, three hours. Required of all PhD students who have passed their field examinations but have not yet advanced to candidacy and all MURP students completing their thesis capstone option. Advanced research design course that guides students in selecting problem/question to study, reviewing previous research on problem/question, framing specific research questions/hypotheses, and selecting methodology and plan for testing hypotheses. May be repeated for credit. S/U or letter grading.

M210D. Introduction to Qualitative Research. (4) (Same as Social Welfare M249B.) Lecture, three hours; outside study, nine hours. Required: course M208A. Required in first or second year of PhD program. Introduction to philosophy, theories, logic, design, and practice of qualitative research by studying its varied methodologies. Letter grading.

M209A. Special Topics in Planning Theory. (4) Lecture, three hours. Topics in planning theory selected by faculty members. May be repeated for credit. S/U or letter grading.

M210A. Special Topics in Public Affairs. (4) (Same as Public Policy M291C and Social Welfare M290.) Seminar, three hours; outside study, nine hours. Advanced seminar on emerging issues across public policy, social welfare, and planning. May be repeated for credit. S/U or letter grading.

M210B. Comparative Perspective on States, Markets, and Civil Society. (4) (Same as Public Policy M247B and Social Welfare M290X.) Lecture, two and outside study. Governance and managing societal problems, such as climate change, poverty, migration, security, mobility, pollution, or trade relations. Contemporary governance is complex set of laws, rules, and regulations that and responsibilities of three institutional complexes of modern societies (state, market, and civil society), interests that guide them, and legitimacy and resources they command. Actors often across systemic, jurisdictional, and national boundaries; their relationships can be cooperative, neutral, or fraught with conflict, and governance outcomes can vary significantly. Their dynamics involve positive and negative changes and, consequently, require significant governance readiness. Lectures, debates, in-class exercises, and student presentations. Exploration of several issues in more detail, e.g., trade, security, democracy, crisis management, governance innovation, and specific policy fields such as infrastructure or global finance. S/U or letter grading.

M211. Law and Quality of Urban Life. (4) Lecture, three hours. Introduction to law as urban system, directed primarily toward those interested in intersection of law and policy: broad array of urban issues examined, as is law as part of urban cause and cure of urban problems. Examination of law as changing process rather than collection of principles, so that students develop facility to interact with law and lawyers in positive and forceful manner. S/U or letter grading.

M212. International/Comparative Planning Workshop. (2 or 4) Seminar, three hours: field trips, five to 10 days. Topics of planning and policy in various international or domestic sites. Topics may include urban design, housing development, and/or physical planning. May be repeated for credit. S/U or letter grading.

M213. Urban Data Science. (4) Lecture, three hours. Preparation: basic Python programming experience or introductory Python course. New data sources are potential goldmine for urban planners and policy makers. But sometimes they are large, messy, or awkward to access, and often they are all of these things. Development of skills in scraping, processing, and managing urban data, and using tools such as natural lan-
guage processing, geospatial analysis, and machine learning. Use of examples from transit, housing, and equity planning, and building of competence in open-source tools such as Python and SQL. Consideration also of limits to data science, and biases and pitfalls that big data can entail. Letter grading.

214. Neighborhood Analysis. (4) Lecture, two hours; laboratory, one hour. Introduction to GIS and statistical and cartographic software useful but not necessary. Methods-oriented studio course, with focus on developing data and analytical skills required to profile and analyze neighborhood regions. Students develop quantitative neighborhood profiles that can be used in community planning and at other geographical levels (e.g., cities, counties, and regions). Students gain professional experience and produce reports that fit larger community. Data management and analysis, including accessing, cleaning, and presenting data. Letter grading.


M216. Current Issues in Food Studies. (4) Same as Community Studies M217.) Seminar, three hours; outside hours. Limited to Food Studies Graduate Certificate Program students. Food is complex subject given that production, procurement, preparation, consumption, and exchange of edible matter is biologically vital to human growth, development, and function and critical to many aspects of society and culture. Food studies is growing cross-disciplinary field of research, teaching, and policy that encompasses and draws from cultural anthropology and geography, food law and policy, urban planning, sociology, literature, history, public health, nutrition, environmental science, molecular biology, and statistics. Students learn how to use geographic information systems (GIS) to inform practice, advocacy, and policy work at local, state, national, and international levels. Letter grading.

222A. Introduction to Planning History and Theory. (4) Lecture, three hours; discussion, 90 minutes. Required of first-year MURP students, typically in Fall Quarter. Includes historical examples of how students who have not completed comparable graduate course in planning history and theory. Exploration of planning thought and practice over time, leading authors and key issues in field of planning, traditional and insurgent histories of planning, and alternative approaches to planning for multiple and pluralistic publics. Letter grading.

222B. Advanced Planning Theory: Production of Space. (4) Lecture, three hours; outside (4) hours. Designed for first-year PhD students. Major ideas and theories of planning that have influenced its development from early-19th century to present. Letter grading.

223. Critical Race Studies. (4) Lecture, three hours. Focus on foundational and contemporary critical race theory (CRT), and other theoretical works focusing on racism and racialization, as applied to public policy, social welfare, and urban planning. Review of causes and symptoms of structural racism and the racist ideologies that inform, and are influenced by, these three fields. Students are expected to be prepared and ready to engage in class by completing readings, developing key theoretical reflection, and keeping up with current events related to course topics. Letter grading.

224. Racial Justice and Planning. (4) Lecture, three hours. Addresses problem of advancing racial justice in and through planning research and practice. What key theories that explain racism and justice in planning are; how histories of unjust planning thought and practice have contributed to entrenched racial inequalities in and around cities; what some promising practices for confronting and addressing historical and present-day racial injustice are; and how intersect- ional understanding and approach can be embraced by planners taking on the highly unequal, politically fractured, and charged urban and regional landscapes. Addresses these questions of planning through modules examining topics such as abolition and policing, climate and environmental justice, housing and infrastructure; spatial planning and urban design; education reform; immigrant incorporation; and public health. Letter grading.


226. Visual Communication Skills. (2) Five-week course. Lecture, two hours; laboratory, one hour. Greater emphasis on graphic presentation and visual communication to educate stakeholders, advocate for change, and encourage participation in planning pro- cess in recent years, in both public and private sector. Visual communication requires analytic skills and stra- tegic thinking, strong foundation in design theory, and technical skills in computer programs. Introduction to Adobe InDesign and Illustrator and foundation in design theory and communication. How to use graphic design presentation programs to create attractive and powerful planning materials and reports, design principles to communicate ideas in clear, succinct, and engaging manner, and when and how to use graphic materials to support verbal presentations or written reports. Letter grading.

229. Special Topics in Planning Methods. (4) Lecture, three hours. Topics in planning methodology selected by faculty members. May be repeated for credit. S/U or letter grading.

M230. Introduction to Regional Planning. (4) Same as Public Policy M241.) Lecture, three hours. Critical and historical survey of evolution of regional planning theory and practice, with particular emphasis on rela- tionships between regional planning and developments within Western social and political philosophy. Major concepts include regions and regionalism, territorial community, and social production of space. Letter grading.

M231. Global Public Affairs: Governing in Interconnected World. (4) Same as Public Policy M228B and Social Welfare M215.) Lecture, three hours; outside work, nine hours. Conceptually, focus on interplay be- tween three major institutional complexes of modern, globalization, and large scale social and political organizations that operate within them: state, market, and civil society. Study moves between abstract theory and concrete exam- ples, offers sense of where these institutions and or- ganizations have come from, and helps chart their present trajectories. From perspective of governance, social movements and configurations of institutions and organizations to address today’s challenges. S/U or letter grading.

232. Disaster Management and Response. (4) Lecture, three hours. Through readings and presentations, examination of disaster management and response in both U.S. and developing countries. Exploration of how disaster impacts and risk reduction both relate to economic, vulnerability, and political factors, in addi- tion to the complex roles and responsibilities of governments and organizations to focus on distinct disaster contexts and themes as set out in reading and weekly sessions. Letter grading.

233. Political Economy of Development. (4) Formerly numbered M233.) Lecture, three hours. Intro- duction to new approaches in urban studies, basic concepts and analytical approaches of urban political economy, with major emphasis on American urban problems and restructuring of modern metropolises. Topics include historical geography of urbanization, development and transformation of urban spatial structure, suburbanization and metropolitan political fragmentation, urban fiscal crisis, and role of urban so- cial movements. Letter grading.

M234A. Development Theory. (4) Same as Geography M229A.) Lecture, three hours. Review of basic literature and schools of thought on development theory through analysis of cases of colonization, co- lonialism, capitalism, and socialism on various urban and rural social and economic structures in Third World. Presentation, through evaluation of theoretical writings and case studies, of complexity and diversity of developing countries. Emphasis on linkages be- tween policy and rural and urban impacts. Gives stu- dents important background for courses M234B, M234C, and many other planning courses addressing Third World issues. Letter grading.

M234B. Ecological Issues in Planning. (4) Same as Geography M229B.) Lecture, three hours. Recommended preparation: course M266. Science and poli- tics of modern environment, in light of transformations inherent in global change, including how to address these questions in ways that go be- yond green consumerism and bifurcation of wild, eco- logical, and human environments. American environ-
mentalism has become dominant model for many conservation practices. Informed by Muirist model of
informed by Muirist model of mentalism has become dominant model for many
inflationary growth, development, and many others can be skeptical of both in 21st century. Letter grading.

235A. Urbanization in Developing World. (4) Lecture, three hours. Course 235A is not prerequisite to
questions of urbanization and planning in low- and middle-income countries. Case studies from Latin America, Africa, and Asia. Lectures, student presentations, and policy debates. Letter grading.

235B. Civil Society, Nongovernmental Organizations, and Environmental Movements. (4) Lecture, three hours. Questions of civil society, nongovernmental organizations (NGOs), and social movements in low- and middle-income countries. Case studies from Latin America, Africa, and Asia. Lectures, student presentations, and policy debates. Letter grading.

236A. Theories of Regional Economic Development. (4) Same as Geography M230A and Public Policy M240L. Lecture, three hours; discussion, one hour. Examination of theories of location of economic activity, trade, and other forms of contact between regions, and industrial change. Focus on how experiences with bureaucracies, bureaucrats shape their jobs, and experiences of people who interact with bureaucracies tend voluntarily or involuntarily.


242. Poverty and Inequality. (4) Lecture, three hours. Examination of relationship between urbanization and spatial inequality in U.S.—spatial dynamics of urban growth, levels and causes of spatial inequality, and implications of spatial inequality for low-income communities. Topics include poverty, residential segregation, immigrant neighborhoods, spatial disparities in access to opportunities, housing mobility, neighborhood health and safety, transportation, and social cohesion. Analysis of role of policies in promoting and/or reducing spatial inequalities. Letter grading.

243. Urban Futures: Space, Ecology, Society. (4) Lecture, three hours. Urban social and ecological changes are intertwined and coproduced. Inquiry into how we can better understand and intervene in this critical relationship, in global context of technological change, ecological crises, and inequality, rethinking planned and unplanned societies. Examination of big problems, and big ideas and big plans that may be necessary to address them as well as what enables large-scale urban environmental projects to be conceived and implemented. Letter grading.

244. Urban Poverty and Planning. (4) Lecture, three hours. Examination of determinants of urban poverty, with emphasis on urban poverty in U.S. and on geographical dimensions of poverty and planning interventions that contribute to poverty reduction. Topics include relationship between poverty and human and social capital, demographic change, low-wage labor market, spatial concentration of poor, residential segregation, and social policy. Letter grading.

245. Urban Public Finance. (4) Lecture, three hours. Requisites: courses 207, 220A. Theory and practice of urban public finance, with emphasis on methods used to fund public infrastructure. Topics include fiscal impact analysis of real estate development, effects of taxes on land-use decisions, benefits assessment to


247. Planning for Multiple Publics. (4) Lecture, three hours. Exploration of planning needs of various social groups in urban settings, using existing literature and research studies to develop the mechanisms of planning for multiple publics. Analysis of communities in Los Angeles metropolitan area to gain insights into practical, theoretical, and methodological problems of planning for multiple publics. Generally taken in first year. S/U or letter grading.

249. Special Topics in Transportation Policy and Planning. (4) Lecture, three hours. Topics in transpor-
tation policy and planning selected by faculty members. May be repeated for credit. S/U or letter grading.

250. Transportation, Land Use, and Urban Form. (4) Same as Public Policy M220. Lecture, three hours. Historical evolution of urban form and transportation systems, intracity, intercity, and regional, and state government in historical and institutional context: organization, finance, intergovernmental relations, role of judiciary, public services, lawmaking, citizen participation through initiatives and referenda, and government tort liability. Letter grading.

251. Parking and City. (4) Lecture, three hours. Requisites: course 207. Parking is misunderstood link between transportation and land use. Transportation engi-
evines typically arise when planning for parking is at end of most trips, while urban planners plan for parking as transportation issue that engineers must study. No profession is intellectually responsible for parking and everyone interacts with parking. Letter grading.

252. Transportation and Land Use: Transportation and Urban Design Studio. (4) Studio, three hours. Students of different backgrounds and interests collaborate, and individually propose solutions for actual transportation planning and urban design problem. Course simulates real-world professional planning project of type that students might be assigned if working for public agencies. Students acquire ability to collect and synthesize evidence typically marshaled by transportation planning and urban design professionals, urban and site analysis capabilities, design and physical planning skills, and data analysis and design presentation and re-presentation abilities. Letter grading.

253. Travel Behavior Analysis. (4) Same as Civil Engineering M236B and Public Policy M240L. Lecture, three hours. Requisites: courses 207 and 220B, or Public Policy 201 or M201A, and 203. Descriptions of travel patterns in metropolitan areas, recent trends and innovations into travel forecasting methods, trip generation, trip distribution, mode split traffic assignment, critique of traditional travel forecasting methods and new approaches to travel behavior analysis. Letter grading.

254. Bicycle and Pedestrian Planning. (4) Lecture, three hours. Walking and bicycling are essential components of sustainable transportation systems. In response to growing concerns about access, safety, and livability, emphasis is placed on transportation planning and pedestrian and bicycle transportation. Exploration of field’s relationship to land use, transportation planning, public health, and environment. Detailed knowledge provided of various bicycle and pedestrian facilities and their appropriate contexts. Examination of bicycle
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and pedestrian planning in context of overall street design. Essential components of bicycle and pedestrian planning, including policies, programs, funding, and advocacy. Focus on development of and out-of-class planning projects. Letter grading.

M255. Shared Mobility Policy and Planning. (4) (Same as Public Policy M244.) Lecture, three hours. Introduction to planning, analysis, and management of shared mobility services in particular focus public transit. Overview of shared mobility policy and planning context; introduction to transportation planning and project evaluation processes; high-speed rail and airports and aviation; public transit policy and planning, including performance evaluation and route planning; taxis and ADA paratransit, ride-hailing, car-, bike-, and scooter-share; implications of vehicle automation for shared mobility in the years ahead. Letter grading.

M256. Transportation Economics, Finance, and Policy. (4) (Same as Public Policy M222.) Lecture, three hours. Overview of transportation finance and economic consequences of equity and in transport finance; historical evolution of highway and transit finance; current issues in highway finance; private participation in road finance, toll roads, road costs and tolls, congestion pricing; current issues in transit finance; transit fare and subsidy policies, contracting and privatization of transit services. Letter grading.

M257. Transportation and Urban Economics. (4) Lecture, three hours. Examination of equity issues related to urban transportation, with focus on complex relationships among urban spatial structure, transportation (travel patterns) and transportation investments in urban economics. Role of transportation in improving economic outcomes for low-income and minority households and communities. Letter grading.

M258. Transportation and Climate Change. (Same as Applied Policy M223.) Lecture, three hours. How to reduce greenhouse gas emissions from transportation. Critical analysis of policies to improve fuel economy, promote electric vehicles, and reduce vehicle travel. Effects of transport and the development of alternative transportation systems. Analytical methods to quantify carbon emissions and estimate emission reductions. Focus on climate change, but consideration of other environmental consequences of transportation and across low and middle income countries. Examination of similarities and distinctions between relevant water access issues in both contexts. To date, water resources planning has been devoted almost exclusively to surface water supply and delivery systems. Focus here on social, political, and economic drivers of access, inequality of access, and related conflicts. Water resource governance issues primarily considered at subnational, city, and household scales. S/U or letter grading.

264. Environmental Law. (4 or 6) Lecture, three or four hours. Examination of federal and environmental law related to transportation. From environmental regulations that limit pollution, to strategies and allocation of primary responsibility for various environmental decisions. Focus on air pollution and Clean Air Act as means of illustrating policy issues underlying federal law. Concurrently scheduled with Law 290. S/U or letter grading.

264A-264B. Environmental Law. (264A: 3 or 4/264B: 1 or 2) Lecture, three hours. Course 264A is enforced requisites to 264B. Examination of principles of environmental law through analysis of various legal issues and public policy. Legal consequences of public decision-making, and knowledge about ways to frame development, and transportation policy and planning issues under federal law. Concurrently scheduled with Law 290. In Progress (264A) and S/U or letter (264B) grading.

M265. Environmental Economics: Urban and Regional. (4) Lecture, three hours. Reading-intensive exploration of urban and regional economic issues. Emphasis on problems related to urban and regional economic development and the management of land use. Topics include: economic growth and development, and transportation policy and planning issues under federal law. Concurrently scheduled with course CM172. Letter grading.

M272. Introduction to Market-Rate Real Estate Development and Finance. (4) (Same as Architecture and Urban Design M272.) Lecture/seminar, three hours. Studio, two hours; outside study, eight hours. Course 220A. Recommended for first-year students in community development and urban design, and urban development areas of concentration. Introduction to real estate development law process specifically geared toward students in planning, architecture, and urban design. Financial decision model, market studies, designs, loan packages, development plan, and feasibility studies. Lectures and projects involve integrated development process with exposure to design solutions that are interactively modified to meet efficient feasibility tests. S/U or letter grading.

272B. Advanced Real Estate Studio. (4) Studio, three hours. Lecture, three hours. Course 220B. Study combines disciplines of planning, urban design, construction, real estate finance and investment, and property operations and management. Students learn about the departmental and regulatory structure of the real estate market, and the development of the Capital Markets. Letter grading.

M273. Site Planning. (4) Lecture, three hours. Reading-intensive exploration of planning, public policy, and real estate development. Knowledge about ways to frame development, and the management of land use. Topics include: economic growth and development, and transportation policy and planning issues under federal law. Concurrently scheduled with course CM172. Letter grading.

273. Site Planning. (4) Lecture, three hours; laboratory, 90 minutes. Lecture: two hours; discussion, 90 minutes; one field trip. Requisites: course 220A. Recommended for first-year students in community development and urban design, and urban development areas of concentration. Introduction to real estate development law process specifically geared toward students in planning, architecture, and urban design. Financial decision model, market studies, designs, loan packages, development plan, and feasibility studies. Lectures and projects involve integrated development process with exposure to design solutions that are interactively modified to meet efficient feasibility tests. S/U or letter grading.

M275. Community Development and Housing Policies: Roles of State, City, and Nonprofits. (4) (Same as Public Policy M243 and Social Welfare M290U.) Lecture, three hours; outside study, nine hours. Designed for graduate students. Examination of role of community development, and the management of land use. Topics include: economic growth and development, and transportation policy and planning issues under federal law. Concurrently scheduled with course CM172. Letter grading.

276A-276B. Urban Housing. (1 to 8 each) (Same as Law M287.) Lecture, three hours. Course 276A is enforced requisite to 276B. Examination of past 40 years of federal and state programs to stem urban decline and improve housing in U.S.; comparison and

278. More Jobs, Better Jobs: Work and Policy. (4) Lecture, three hours. Examination of how labor markets work and what can be done to help them work better, with focus on U.S. Particular emphasis on low-wage, low-skill workers and marginalized groups, such as inner-city people of color and immigrants. Analyses of how urban labor markets work with discussions of policy options for making them work better and range of solutions for improving job creation, workforce training and job ladder creation, union and community organizing, and immigration reform. Examination of power and economic inequality and how to make changes. Letter grading.

279. Seminar: Public Space. (4) Seminar, three hours. Investigation of changes in production, consumption, design, and meaning of public space and analysis of social, political, economic, and cultural factors that lie behind them. Letter grading.


281. Introduction to History of Built Environment in U.S. (4) Lecture, two hours; discussion, one hour. Introduction to history of urban design and its development in different cultural contexts and regions. Letter grading.

282. Urban Form, Paradigms, Applications. (4) Lecture, three hours. Discussion and evaluation of the philosophical bases, ideologies, and paradigms of urban design in last century; examination of how these have refocused on built environment of cities. Letter grading.

283. Community Development, Organizing, and Engagement. (4) Lecture, three hours. Examination of theory and practice of community development, organizing, and engagement. Understanding of multiple dimensions of community development (physical, economic, political, social) and how they interact, as well as major debates about community development strategies. Focus on empowerment strategy in disadvantaged and marginalized communities, and relationship of community and worker organizing to broader movements for social change. Consideration of various approaches to community participation and engagement, and struggles over power and inclusion within these processes. Examination of relations between community development and enrollment. Letter grading.

284. Looking at Los Angeles. (4) Lecture, three hours. Introduction to history and physical form of Los Angeles, with emphasis on understanding social, economic, and political issues in development of Los Angeles. Concurrently scheduled with course C184. Letter grading.

285. Built Environment and Health. (4) Formerly numbered 285. Lecture, three hours. Exploration of important linkages between urban-biobuilt environment and health. Focus on physical, urban planning, and community-based approaches through theory and series of case studies. Understanding of these linkages is used to propose ecological solutions to issues at nexus of built environment and public health. May be concurrently scheduled with course CM11.$ Letter grading.

286. Politics, Power, and Philanthropy. (4) Seminar, three hours; outside study, nine hours. Use of political economics perspective to analyze forces that have shaped rise and characteristics of nonprofit sector and its constituent elements. Examination of social history of nonprofit sector in U.S. Exploration of legal and policy environments and distinct organizational forms. Comparative perspective between U.S. and other countries. S/U or letter grading.

288. Sprawl and Smart Growth. (4) Lecture, three hours. Suburbs are not new, but metropolitan areas in U.S. and overseas have grown rapidly at their edges in ways that many consider problem-plagued. Discussion of causes and impacts of sprawl as it relates to smart growth. Letter grading.


292. Elements of Urban Design. (4) Seminar, three hours. Introduction of basic knowledge of elements and methods of urban design. Multidisciplinary approach leading to understanding of political, socioeconomic, and network of urban systems and its dynamic interrelations. S/U or letter grading.

293. Politics, Ideology, and Design. (4) Seminar, three hours. Exploration of cultural and political context of architecture and planning work. Examination of theory and practice from variety of perspectives applied to set of varied physical environments and to set of current spatialized concepts. Consideration of theoretical propositions that are shaping present urban and architectural debate and concrete cases studies where politics and ideology shape design process. Letter grading.

294. Housing in Developing Countries: Policy Objectives and Options. (4) Lecture, three hours. Examination of relevance of public policies and their intended and unintended effects on housing demand and supply in developing countries. How definition of housing problems, and scope of solutions, has changed over time. Critical assessment of some key solutions that have been tried in past, their advantages, shortcomings, and resultant trade-offs, and likely directions for future housing policy. Letter grading.

295. Introduction to Urban Humanities. (4) Lecture, three hours; studio, six hours. Core introduction to urban humanities. Analytical and descriptive methods of humanities paired with speculative and projective methods of architectural and urban design to better understand contemporary state of human environment. Focus on Los Angeles, with concepts seminar, methods laboratory, projects studio, and site visit components. Offered in summer only. S/U or letter grading.

296. Housing Policy and Planning. (4) Seminar, three hours. Study of housing policy and planning in the U.S. and California given rapid changes in state, with consideration of experiences from other states and countries and to what extent they are relevant here. Social policies likely impact housing, such as social housing, rent control, and housing finance, issues of household formation, housing supply, housing sub-markets, and gentrification, as well as planning processes related to housing and Affirmatively Furthering Fair Housing. Letter grading.

297. Current Issues in Urban Planning. (1 to 4) Seminar, three hours. Current issues in urban planning selected by students in conjunction with faculty member. May be repeated for credit. S/U grading.

297B. Current Issues in Public Affairs. (2) Seminar, three hours. Current issues in urban planning selected by students in conjunction with faculty member. May be repeated for credit. S/U grading.

297F. Career Planning and Management. (2) Seminar, three hours. Topics in newly emerging planning issues such as role of cutting-edge technology, innovative policies, and experimental programs. May be repeated for credit. Letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, one hour. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

390. Joint Planning/Architecture Studio. (4) Seminar, three hours. Topics in newly emerging planning issues such as role of cutting-edge technology, innovative policies, and experimental programs. May be repeated for credit. Letter grading.

496. Field Projects. (4) Tutorial, four hours. May not be repeated for credit. S/U grading.

501. Cooperative Program. (2 to 8) Tutorial, one hour; discussion, one hour; studio, four hours. Opportunity to work on joint planning/architecture project for client. Outside speakers; field trips. Examples of past projects include third Street Housing, Santa Monica; New American House for nontraditional households; Pico-Aliso Housing, Boyle Heights; with residing in Los Angeles public housing developments. S/U or letter grading.


548. Field Projects. (4) Tutorial, four hours. May not be repeated for credit. S/U grading.

549. Field Projects. (4) Tutorial, four hours. May not be repeated for credit. S/U grading.
UROLOGY
David Geffen School of Medicine
379 Wasserman Building
Box 957383
Los Angeles, CA 90095-7383
Urology
310-794-8492
Mark S. Litwin, MD, MPH, FACS, Chair

Overview
The fundamental goal of the Department of Urology is to teach medical students the general principles of diagnosis and management in diseases of the genitourinary tract. Urology encompasses a wide scope of human illness, including conditions that are congenital and acquired, pediatric and adult, male and female, malignant and benign. The department functions to acquaint students with the skills necessary to manage these conditions in the initial stages and over the long term.

Instruction spans all four years of the undergraduate medical school curriculum but is concentrated during the clinical rotations. Students spend two weeks on the urology service during the third year and may return for an additional three-week elective rotation during the fourth year. The clinical experience includes time spent in the faculty and resident clinics, on ward rounds, and in didactic conferences that cover general urology, urological subspecialties, uropathology, and uroradiology. Urology teaching settings include the Reagan UCLA, Harbor-UCLA, Olive View-UCLA, UCLA Santa Monica, and West Los Angeles VA medical centers.

For more details on the Department of Urology and courses offered, see the department website.

Urology

Lower-Division Courses
19. Fiat Lux Freshman Seminars. (1) Seminar; one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work); three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Course
199. Directed Research in Urology. (2 to 8) Tutorial, four hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper required. May be repeated for credit. Individual contract required. P/NP or letter grading.

VISUAL AND PERFORMING ARTS EDUCATION
Interdisciplinary Minor
School of the Arts and Architecture
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Miguel Gutierrez, MFA (World Arts and Cultures/Dance)
Kevin M. Kane, PhD (Arts and Architecture)
Victoria E. Marks, BA (World Arts and Cultures/Dance)
Lauren L. McCarthy, MFA (Design/Arts)
Chandler McWilliams, MFA, MA (Design/Media Arts)
Hirsch Perlman, BA (Art)
Karen Hunter Quartz, PhD (Education)
David J. Roussève, BA (World Arts and Cultures/Dance)
Anna M. Sew Hoy, MFA (Art)
Cosmo D. Whyte, MFA (Art)

Overview
The Visual and Performing Arts Education minor is an interdisciplinary and interdepartmental series of courses designed to introduce students to the field of arts education for multiple publics in general and specifically in relationship to the K-12 public school system; introduce students to the profession of the teaching artist and to a broad range of careers in the arts, including K-12 teaching, community arts education, museum education, creative arts therapies, and arts advocacy and to a variety of arts-related programs and cultural agencies, including community arts centers, museums, after-school programs, and nonprofit arts institutions; expand the ongoing dialogue and interaction between UCLA, extended Los Angeles community, K-12 public school system, and students in the arts; extend the School of the Arts and Architecture commitment to UCLA and community partnerships by linking teaching and research with undergraduate education, civic engagement, and support experiential learning opportunities that address issues of educational equity and social justice; and conduct research on the transformative potential for the arts to positively impact society and evaluate best practices in arts education.

Undergraduate Minor

Visual and Performing Arts Education Minor

The Visual and Performing Arts Education minor is intended to supplement the education of undergraduate students enrolled in the Architectural Studies, Art, Art History, Dance, Design/Media Arts, Ethnomusicology, Music, Theater, and World Arts and Cultures majors.

Admission
To apply to the minor, students must have completed at least 50 percent of the lower-division requirements of their specific majors and Arts Education M102 with a grade of B or better, be in good academic standing with an overall grade-point average of at least 2.7, and submit a minor application, which includes a concentration proposal to be developed in consultation with the Visual and Performing Arts Education director.

The Minor

Required Courses (28 to 32 units with a minimum of 24 upper-division units): (1) Core and capstone sequence requirement: Arts Education M102, M192, M192XP (Arts Education M192 and M192XP include a guided teaching experience), (2) arts education requirement: two courses selected from Arts Education 20, 101, 103, 105, 195 (minimum units), 197 (minimum units), (3) one upper-division education course (list of recommended courses available from the Arts Education program office or the school Office of Student Services), and (4) one upper-division elective course (minimum units) selected from arts education or, by petition, an arts education related course (list of recommended courses available from the Arts Education program office or the school Office of Student Services).

Policies
A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade. Successful completion of the minor is indicated on the transcript and diploma.
Arts Education

Lower-Division Courses

19. Flat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

20. Introduction to Community Engagement through Arts. (5) Lecture, three hours; discussion, one hour; outside study, 11 hours. Introduction to fields of community engagement and arts education informed by philosophies of progressive education and social justice movements. By looking at community engagement as issue of equity and social justice, examination of basic theories of creativity, artistic development, and community partnership, and history, philosophies, politics, and sociocultural trends of community engagement in American society. Attendance at UCLA arts presentations and introduction to creative process. Readings and discussions to understand community engagement and arts education as crucial elements of comprehensive education, with emphasis on writing process, including regular writing assignments that require students to read, analyze, critique, and evaluate community arts practices and arts education scholarship. P/NP or letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be repeated for maximum of 8 units. Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP or letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week. Four-year-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

101. Selected Topics in Arts Education. (4) Lecture, three hours; outside study, nine hours. Selected topics in arts education explored through variety of approaches. May include community projects, guided teaching experiences, studio and/or fieldwork, readings, discussion, research papers, and oral presentations. Topics announced in advance. May be repeated for credit. P/NP grading.

102. Introduction to Arts Education for Multiple Publics: Theory and Practice. (4) (Same as Education M142.) Seminar, three hours; outside study, nine hours. Introductory course with focus on arts education for multiple publics in inner-city settings. Study of core issues in arts education, creativity, and social justice as students develop, implement, and assess original syllabi, lesson plans, and community learning projects for multiple publics in inner-city schools and arts organizations. Collaboration with partner schools in planning, teaching, and evaluation of arts education programs in dance, music, theater, and visual arts. P/NP or letter grading.

103. Socially Engaged Pedagogy in Arts. (4) Lecture, three hours; outside study, nine hours. Students are in contact and conversation with active community-based artists and youth workers regularly utilizing socially engaged pedagogy and arts education in core classes, principles, and practices. Based on readings and investigations, students research and write one case study on one particular arts site that is utilizing socially engaged pedagogies and art-making strategies. Theoretical and experiential components provided for students from all arts disciplines to explore tactics and strategy of socially engaged pedagogy and arts practice through variety of approaches that may include readings, visual and audio documentation, discussion, research papers, oral presentations, and relevant guest speakers. P/NP or letter grading.

105. Arts Programs in Correctional Institutions: History, Theory, and Practice. (4) Lecture, three hours; outside study, nine hours. Examination of attitudes of prison and probation toward utilizing artists working in prison, political figures, and community while critically engaging with consequences of correctional environment outside influence of arts as role model for inspiration and discipline. Seminars will be in correctional institutions explored through variety of approaches that may include readings, visual and audio documentation, discussion, research papers, oral presentations, and relevant guest speakers. P/NP or letter grading.

107. Visual Arts Methods for Teaching Artist. (4) Lecture, three hours; discussion, one hour. Recommended prerequisite: experience in specific art form. Enrollment by consent of instructor. Methodological approach to teaching visual arts specifically in K-12 setting. Emphasis on strategies for teaching in hybrid settings, inclusive of management strategies, evaluation, and repertoire development. Exploration through variety of approaches may include community projects, performance, guided teaching experiences, studio and/or fieldwork, readings, discussion, and oral presentations. P/NP or letter grading.

108. Performing Arts Methods for Teaching Artist. (4) Lecture, three hours; discussion, one hour. Recommended prerequisite: experience in specific art form. Enrollment by consent of instructor. Methodological approach to teaching performing arts specifically in K-12 setting. Emphasis on strategies for teaching in hybrid settings, inclusive of management strategies, evaluation, and repertoire development. Exploration through variety of approaches may include community projects, performance, guided teaching experiences, studio and/or fieldwork, readings, discussion, and oral presentations. P/NP or letter grading.

109. Design/Media Arts Methods for Teaching Artist. (4) Lecture, three hours; discussion, one hour. Recommended prerequisite: experience in specific art form. Enrollment by consent of instructor. Methodological approach to teaching design/media arts specifically in K-12 setting. Emphasis on strategies for teaching in hybrid settings, inclusive of management strategies, evaluation, and repertoire development. Exploration through variety of approaches may include community projects, performance, guided teaching experiences, studio and/or fieldwork, readings, discussion, and oral presentations. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be repeated for credit. P/NP or letter grading.

M102. Introduction to Arts Education for Multiple Publics: Theory and Practice. (4) (Same as Education M142.) Seminar, three hours; outside study, nine hours. Introductory course with focus on arts education for multiple publics in inner-city settings. Study of core issues in arts education, creativity, and social justice as students develop, implement, and assess original syllabi, lesson plans, and community learning projects for multiple publics in inner-city schools and arts organizations. Collaboration with partner schools in planning, teaching, and evaluation of arts education programs in dance, music, theater, and visual arts. P/NP or letter grading.

195. Community Internships in Arts Education. (2 to 4) Tutorial, one hour; fieldwork, eight to 10 hours. Limited to juniors/seniors. Internship in supervised setting in K-12 schools or community arts organizations. Students meet on regular basis with instructor and provide periodic reports of their experience. May be repeated for maximum of 8 units. Individual contract with supervising faculty member required. P/NP or letter grading.

197. Individual Studies in Arts Education. (2 to 4) Tutorial, to be arranged. Preparation: 3.0 grade-point average in major. Limited to juniors/seniors in Visual and Performing Arts Education minor and/or arts education teaching sequence. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. Letter grading.

World Arts and Cultures/Dance

School of the Arts and Architecture

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World Arts and Cultures/Dance / 867
Overview

Defined by a dynamic blend of theory and practice, the Department of World Arts and Culture/Dance (WAC/D) is led by a renowned faculty of scholars, activists, curators, filmmakers, and choreographers dedicated to critical cross-cultural analysis and making. The department is the place to make dances, explore digital media, curate exhibitions, become an arts activist, and develop scholarly expertise in culture and the arts. Multiple disciplines and artistic approaches are used to encourage students to position their work within broad social contexts.

In the World Arts and Cultures BA arts activism, visual cultures, and critical ethnographies are emphasized. The Dance BA integrates composition, training, and improvisation, while challenging students to locate dance politically, culturally, and historically. The MFA in Choreographic Inquiry promotes adventurous choreographic inquiry and engages with global discourses around the body and performance. The MA/PhD programs in culture and performance address theories of corporeality, performance, visuality, and culture, and offer interdisciplinary training that fosters independent research. The Art and Global Health Center enables undergraduate and graduate students to explore art as a life-saving activity. The path-breaking programs of the department are committed to academic excellence, diversity, freedom of expression, activism, and social transformation through the arts.

Undergraduate Study

The undergraduate program offers majors in Dance and in World Arts and Cultures.

The BA in Dance thoroughly integrates learning to dance, learning to make dances, and critical interrogation of dance as a cultural practice. Students study a variety of dance throughout their studies. They enroll in a four-term sequence in dance composition, with additional opportunities to participate in the creation of their own dances, as well as working as dancers in the creation of new works by faculty members and visiting artists. Further, they engage in a core of four courses in the study of scholarly discourse around the body and dance, launching a critical inquiry into their own study of bodily practices, internalization of the embodied experience, and how bodily ideas and embodied experiences are interpreted and communicated outwardly and interpersonally, both locally and globally.

The BA in World Arts and Cultures highlights culture and representation as key perspectives for understanding creativity in local and global arenas. Three streams of cross-cultural and interdisciplinary study are available: arts activism, critical ethnographies, and visual cultures. These streams define the department commitment to a range of practices, including ethnography,activism, visual and related expressive arts, documentary and short films, museum and curatorial studies, performance, and other creative perspectives and methods. Courses combine theory and practice and are grounded in culturally diverse artistic expressions.

All students are encouraged to complement the required set of core and elective departmental courses with others offered across campus, such as courses from ethnic and area studies programs, and may organize their course of study in relation to particular interests or professional goals (e.g., international comparative studies, intercultural studies, education, area specializations such as Africa, Asia, or Latin America, minority discourse, gender studies).

Graduate Study

The graduate program offers Master of Arts (MA) and Doctor of Philosophy (PhD) degrees in Culture and Performance and a Master of Fine Arts (MFA) in Choreographic Inquiry. Culture and performance studies research communities, cultures, and transnational movements through heritage and globalization studies, multivocal ethnographies, dance and theories of corporeality and embodiment, visual and material culture, critical museum and curatorial studies, documentary practice and Internet interventions, as well as arts activism and interdisciplinary art making. The MFA in Choreographic Inquiry offers opportunities to engage multiple movement practices as students work on pioneering research in the form of new choreography. Students may focus on media, dance studies theory, and theories of the body as supplements to their work as choreographers. The Art and Global Health Center within the department presents further opportunity for learning and practice.

While operating with considerable independence, the two graduate degree areas are unified by the department’s common concern for aesthetic production, corporeality and performance, the dynamics of tradition, and culture-building in contemporary societies. Connections are forged between critical theory and artistic practices, and attention is given to the changing social roles and responsibilities of artists, practitioners, and scholars of the arts in the U.S. and worldwide.

Undergraduates and graduates have excelled in fields including technology and the arts, videography, documentary work, public service, education, theatrical/events production, performing arts, urban planning, law, environmen
tal activism, public health, and medicine. They have made careers in community nonprofits and activist groups, government arts agencies, museums, and arts foundations. Potential careers for MA, PhD, and MFA graduates also include positions in research universities and colleges, and MFA graduates are active as choreographers/performers in their own companies or with other professional organizations.

Undergraduate Majors

Dance BA

All students take a set of courses as preparation for the Dance major that focuses on the integration of dance and critical analysis. For students who transfer into the major, depending on the year of entry and prior coursework, lower-division preparatory coursework may be waived or substituted. When students enter the major, they continue their studies of dance technique, composition, and analysis, and they also enroll in a primary and secondary research area. The three research areas are (1) creative inquiry as research, (2) critical dance studies, and (3) dance and civic engagement. The creative inquiry as research area is grounded in contemporary choreography with a focus on dance-making and performing in a wide range of genres from throughout the world. Opportunities are provided for students to present their own choreography, to participate in performances by others, and to study performance production and videography. The critical dance studies area focuses on study of scholarship examining the body and dance, in their cultural and historical contexts. Courses in dance history, dance and culture, and dance as an identification practice are offered that enable students to analyze the rhetorical and ideological significance of dance. The dance and civic engagement area is grounded in the investigation and activist-oriented work of artists and the role of dance in the public sphere, and offers a wide range of courses in the nature of activism as well as opportunities for fieldwork, education internships, and other forms of community involvement.

Students select one area as their primary area and another as their secondary area. Elective options provide further deepening of student knowledge and skills in any or all of the areas. Students may also consider courses from programs outside the department and may organize their course of study in relation to their particular interests.

Students who wish to confer with the departmental student affairs officer regarding program planning and major requirements should contact the undergraduate counselor.

Learning Outcomes

The Dance major has the following learning outcomes:

- Choreography of dances in various settings, cultural contexts, and media, with emphasis on progressive approaches
- Creative problem-solving of issues tied to arts and activism, dance-making, and producing
in multiple formats, in an intercultural and interdisciplinary context
• Think critically about the relationship between aesthetics and politics through choreography, written analysis, and multiple research methods
• Demonstrated advanced proficiency in at least two movement disciplines
• Analysis of vocabulary, location, and syntax of dance works
• Analysis of political, cultural, and historical implications of dance works
• Demonstrated ability to understand and implement collaboration in an art-making practice
• Written and oral recognition and synthesis of key concepts in critical dance studies

Entry to the Major

Admission
New students are admitted to the Dance major for fall quarter only. All applicants are reviewed individually, based on submission of a written research paper, transcripts, two letters of recommendation, and one personal essay. These supplementary materials are requested from students in mid-December, after the general UC application is received and processed, and are due back in the department in January. For first-year applicants, college placement test scores are also considered. Students must participate in a late January/early February audition. Specifics about the audition are included in the e-mail requesting the above-mentioned supplementary materials.

Change of major applications are considered once a year. Current UCLA students who petition to change their major are required to meet with the student affairs officer prior to application, but no later than the eighth week of fall quarter in order to participate in the departmental supplemental application process during fall/winter quarters for admission into the program the following spring or fall quarter. They are required to take selected departmental courses before and during the term in which they apply to the program (contact the student affairs officer for a list of selected courses). They must have a minimum 2.0 overall grade-point average, a minimum 2.0 GPA in all departmental courses taken, and no more than 90 quarter units at the time of application. All students are required to audition in early winter quarter and may be interviewed as part of the application process.

Requirements

Preparation for the Major

Required: Dance 1, 16, 44, 45, 67A, 67B, 70.

The Major

The Dance major consists of 76 units of coursework.

Required: (1) Dance 101, 117A, 117B and (2) 10 units in the primary area and 5 units in the secondary area selected from the following:

(a) creative inquiry as research—Dance 114, 116, 117C, C122, 170, C171, 174A, C174B, C180, or other upper-division courses with faculty approval.

(b) critical dance studies—Dance C145X, C152, M157, 158, 160, CM168, C171, 182, World Arts and Cultures 199, or other upper-division courses with faculty approval.

(c) dance and civic engagement—Dance 114, C184, World Arts and Cultures 100A, 100B, 103, 144, 160, 177XP, 195, or other upper-division courses with faculty approval (no more than 8 units of courses 114 and/or 160 may be applied toward this area). Students also have the option to propose a senior honors project through Dance 186A and 186B.

Movement Arts/Dance Practices—Required: A total of 48 units of practice courses. A minimum of two technique courses per term until completion is strongly recommended. Thirty of the total 48 units must be selected from Dance 6, 9, 13, 15, 56, 59, 63, 65, C106A, C113A, C115, 116. Of these 30 units, a minimum of 6 units of a first style and 4 units of a second style must be at the advanced level. Eighteen of the total 48 units may be selected from Dance 5, 10, 11, 12, 16, 52, 60, C112A, 116, 160, World Arts and Cultures 55, 78, 80, 178. No more than 8 units of World Arts and Cultures 78 or 178 may be applied toward this requirement.

Senior Honors Project

Students may participate in a senior honors project consisting of 10 additional units. The project provides students with opportunity to demonstrate mastery and integration of knowledge and learned abilities from the major. The project may take various forms—from choreographic performance projects or an academic research paper to field/internship work in an identified area of research focus. With faculty advising, students must declare their intent to participate by spring quarter of their junior year. They identify a faculty mentor and work closely with that person on the development of the project, submitting a senior project proposal for faculty approval by the beginning of the senior year. In their senior year they enroll in a two-term course sequence (Dance 186A, 186B) to coordinate and present their research findings.

World Arts and Cultures BA

The World Arts and Culture major emphasizes a cross-cultural and interdisciplinary approach to the study of art making, community engagement, and multimedia analysis. The five required preparation for the major courses introduce students to the intersectionality evidenced in the collective work of the faculty. A lower-division, practice-based course enables students to connect the practice and study of art-making across a variety of genres and forms. In three lower-division seminars, students are prepared for the major by studying theoretical concepts of culture, the tensions between local and global art perception, and the diverse ways that colonialism has been understood and resisted around the globe.

Building upon the foundational preparation courses, the required core courses of the major expand interpretive lenses to include ethics of representation, methods of research, an opportunity to build upon one's practice-based experience, and a one-credit course that connects students with faculty advisers to increase awareness of field-specific scholarship, disciplinary methods, and various genres and forms for intellectual output, particularly as these might be articulated with post-graduate aspiration.

Students in the major have the option to pursue a senior praxis project. Working with faculty advisers, students will be able to develop a performance, film, event, multimedia production, and other possible forms of evidence of their education in the department.

Students who wish to confer with the departmental students offier regarding program planning and major requirements should contact the undergraduate counselor.

Learning Outcomes

The World Arts and Cultures major has the following learning outcomes:
• Demonstrated critical analyses of a variety of approaches to visual and performance-based art making and activism in cross-cultural contexts
• Interpretation of and, in some cases, conduct of field-based research within specific communities
• Demonstrated ability to conceptualize, plan, and exercise art, curatorial, and/or ethnographic projects that reflect a dynamic dialog between theory and practice
• Demonstrated sensitivity to diversity and cultural differences, particularly as articulated within various forms of governance, national and international policy, transnational art and curatorial practices, and museum and heritage sites
• Development of informed interpretations, not only of the way that art functions within communities but also how the links between art and community are created and represented
• Articulation of the value of civic engagement within a variety of arts-oriented social contexts

Entry to the Major

Admission
New students are admitted to the major for fall quarter only. All applicants are reviewed individually, based on submission of a written research paper, transcripts, two letters of recommendation, and one personal essay. These supplementary materials are requested from students in mid-December, after the general UC application is received and processed, and are due back in the department in January. For first-year applicants, college placement test scores are also considered. Students must participate in a late January/early February audition. Specifics about the audition are included in the e-mail requesting the above-mentioned supplementary materials.

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Requirements

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Required: Dance 1, 16, 44, 45, 67A, 67B, 70.

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Senior Honors Project

Students may participate in a senior honors project consisting of 10 additional units. The project provides students with opportunity to demonstrate mastery and integration of knowledge and learned abilities from the major. The project may take various forms—from choreographic performance projects or an academic research paper to field/internship work in an identified area of research focus. With faculty advising, students must declare their intent to participate by spring quarter of their junior year. They identify a faculty mentor and work closely with that person on the development of the project, submitting a senior project proposal for faculty approval by the beginning of the senior year. In their senior year they enroll in a two-term course sequence (Dance 186A, 186B) to coordinate and present their research findings.

World Arts and Cultures BA

The World Arts and Culture major emphasizes a cross-cultural and interdisciplinary approach to the study of art making, community engagement, and multimedia analysis. The five required preparation for the major courses introduce students to the intersectionality evidenced in the collective work of the faculty. A lower-division, practice-based course enables students to connect the practice and study of art-making across a variety of genres and forms. In three lower-division seminars, students are prepared for the major by studying theoretical concepts of culture, the tensions between local and global art perception, and the diverse ways that colonialism has been understood and resisted around the globe.

Building upon the foundational preparation courses, the required core courses of the major expand interpretive lenses to include ethics of representation, methods of research, an opportunity to build upon one’s practice-based experience, and a one-credit course that connects students with faculty advisers to increase
partamental courses taken, and no more than 90 quarter units at the time of application. Students may be interviewed as part of the application process.

**Requirements**

**Preparation for the Major**

Required: World Arts and Cultures 1, 2, 20, 24, 33.

**The Major**

The World Arts and Cultures major consists of 46 units of coursework.

**Required:**

(1) World Arts and Cultures 100A or 100B, 102, 104, 124, 185; (2) 25 units from any World Arts and Cultures elective courses, or other upper-division courses with faculty approval.

**Senior Praxis Project**

Students may choose to complete a senior praxis project by completing 15 units of elective coursework and the following two courses (or 10 units of equivalent coursework with faculty approval). World Arts and Cultures 2 and 102 provide the foundational training in making practice-based techniques. Students begin to identify a project in the required World Arts and Cultures 185 Junior-Year Proposal course during their junior year. With the support of their instructor, students can be approved to choose the senior praxis project during their final three quarters of enrollment. Projects may include written theses, visual ethnographies, documentaries, curatorial projects, installations, short films, internships, community service, field-based research, as well as other formats. Projects are crafted in close consultation with faculty advisers to provide capstone experiences that draw together ideas and abilities from their WAC/D curriculum while positioning students for postgraduate opportunities.

**Graduate Majors**

**Choreographic Inquiry MFA 2022-2023**

**Requirements**

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

**Culture and Performance MA, PhD**

The master’s degree may be earned only in the process of completing PhD requirements.

**Requirements**

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Education website. In many cases, more detailed guidelines may be outlined in announce-
ments, other publications, and websites of the schools, departments, and programs.

**Dance**

**Lower-Division Courses**

1. Global Perspectives on Dance. (8) Lecture, three hours; discussion, one hour. Examination of practices of choreography, improvisation, and technique in different cultural settings and historical eras. Introduction to field of dance studies through analysis of broad spectrum of philosophies and practices within global contexts with focus on creative activity, dance-making, thinking and understanding act of improvising, and diverse ways of training one’s body. By framing process of analysis within array of historical periods and cultural settings, development of capacity to engage with dance as lived social and artistic practice while refining critical seeing, thinking, and writing skills. P/NP or letter grading.

2. Moving Voice. (2) Studio, three hours. Experiential Investigation of voice as it relates to resonant, physical body. Working with primal qualities of voice and how it interfaces with breath, physical anatomy, and space around us. Physical approach to singing, with singing being defined in its broadest sense as all possible sounds emitted by human voice. May be repeated for credit without limitation. P/NP or letter grading.

3. Beginning West African Dance. (2) Studio, three hours. Beginning-level study of dances originating from Mandingo culture in sub-Saharan Africa. May be repeated for credit without limitation. P/NP or letter grading.

4. Beginning Hip-Hop Dance. (2) Studio, three hours. Beginning-level study of dances originating from Mandingo culture in sub-Saharan Africa. May be repeated for credit without limitation. P/NP or letter grading.

5. Beginning Martial Arts. (2) Studio, three hours. Beginning-level study of Tai Chi Chuan and other martial arts forms. May be repeated for credit without limitation. P/NP or letter grading.

6. Beginning Modern/Postmodern Dance. (2) Studio, three hours. Beginning-level work in modern and/or postmodern movement practices. Technical training with emphasis on increasing skill. May be repeated for credit without limitation. P/NP or letter grading.

7. Beginning Improvisation in Dance. (2) Studio, three hours. Examination of diverse movement sources from different cultural settings and historical eras. Introduction to creative exploration in which creation of dance can take place. How do different choreographers conceptualize creative process of dance-making? What kinds of strategies do they use for creating or moving out of which they create dance? Answers to these questions in relation to broad range of artistic approaches, acknowledging that dance-making occurs distinctively in different cultural contexts and social moments. Use of these analyses to assist in creative process for making new dances. P/NP or letter grading.

8. Introduction to Dance Studies. (4) Lecture, three hours. Forced-choice cultural contexts and discipline of dance studies, focus on study of corporeality as key contemporary perspective on body. Multidisciplinary approach to dancing bodies conceptualized as social constructs, including attention to race, class, and national identity. P/NP or letter grading.


10. Intermediate West African Dance. (2) Studio, three hours. Intermediate-level study of dances originating from Mandingo culture in sub-Saharan Africa. May be repeated for credit without limitation. P/NP or letter grading.


12. Intermediate Martial Arts. (2) Studio, three hours. Intermediate-level study of Tai Chi Chuan and other martial arts forms. May be repeated for credit without limitation. P/NP or letter grading.


14. Intermediate Modern/Postmodern Dance. (2) Studio, four hours. Intermediate-level work in modern and/or postmodern movement practices. Technical training with emphasis on increasing skill. May be repeated for credit without limitation. P/NP or letter grading.

15. Intermediate Theories and Methods in Dance Composition I: Languages. (4) Seminar, two hours; studio, two hours; outside study, eight hours. Enforced requisite: course 16. Examination of diverse movement sources from which dances are made. How do different choreographers envision vocabularies of movement they use? How do they select or create movement out of which they create dance? Answers to these questions in relation to broad range of artistic approaches, acknowledging that dance-making occurs distinctively in different cultural contexts and social moments. Readings about and viewing of videos of selected artists’ work and their different strategies for creating languages of their dances for comparison. Use of these analyses to assist in creative process for making new dances. P/NP or letter grading.

16. Theories and Methods in Dance Composition II: Processes. (4) Seminar, two hours; studio, two hours; outside study, eight hours. Enforced requisite: course 67A. Examination of diverse movement sources through which creation of dance can take place. How do different choreographers conceptualize creative process of dance-making? What kinds of strategies do they use for sequencing their materials? Answers to these questions in relation to broad range of artistic approaches, acknowledging that dance-making occurs distinctively in different cultural contexts and different historical moments. Readings about and viewing of videos of selected artists’ work and their different strategies for their processes of creating dances for comparison. Use of these analyses to assist in creative process for making new dances. P/NP or letter grading.

17. Production Practicum. (2) Lecture, 90 minutes; activity, three and one half hours. Introduction to practical perspectives on producing events in world arts and cultures, including but not limited to theatrical support and planning and executing lecture series. Introduction to professional stage production principles and hands-on experience in technical theater. May be repeated once for credit. P/NP grading.

18. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

19. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and en-
Upper-Division Courses

101. Theories of Dance. (5) Lecture, four hours; discussion, two hours. Enforced requisite: course 45. Ideas and methods of dance history and movement have achieved broad resonance in contemporary performance, art, politics, culture, and studies of social behavior. Examination of concepts and approaches to dance making and deployments of its vocabulary within field and beyond, concentrated in four principal approaches: history, ethnography, choreographic analysis, and critical theory. Use of key ideas in dance to investigate allied areas of performance, embodiment, social constructions of identity and difference, and relationship between aesthetics and politics. Design of dance performances to illustrate link between theory and practice. How dance creates alternative modes of history and knowledge in range of cultural contexts. P/NP or letter grading.

C106A. Advanced West African Dance. (2) Studio, three hours. Advanced-level study of dances originating from Mandingo culture in sub-Saharan Africa. May be repeated for credit without limitation. Concurrently scheduled with course C406A. P/NP or letter grading.

C108A. Advanced Hip-Hop Dance. (2) Studio, three hours. Advanced-level study of hip-hop movement practices. May be repeated for credit without limitation. Concurrently scheduled with course C408A. P/NP or letter grading.

C113A. Advanced Ballet. (2) Studio, three hours. Advanced-level study of ballet as movement practice. May be repeated for credit without limitation. Concurrently scheduled with course C413A. P/NP or letter grading.

114. Performance Practicum, (1 to 4) Studio, three to 12 hours. Rehearsal and performance in selected choreographic/theatrical work. May be repeated for credit without limitation. P/NP grading.

C115. Advanced Modern/Postmodern Dance. (2) Studio, six hours. Advanced-level work in modern and/or postmodern movement practices. Technical training, with emphasis on increased understanding of movement vocabulary to apply these to performance. May be repeated for credit without limitation. Concurrently scheduled with course C415. P/NP or letter grading.

116. Advanced Improvisation in Dance. (2) Studio, four hours. Enforced requisite: course 116. Development of aesthetic perspective through use of imagery, sound, and other art. Concentration and projection may be repeated for credit without limitation. P/NP or letter grading.

117B. Theories and Methods in Dance Composition IV: Impacts. (4) Seminar, two hours; studio, two hours; outside study, eight hours. Enforced requisites: courses 16, 67A, 67B. Examination of how dance makes an impact on its audience. Synthesis of analyses undertaken in previous courses to determine how dances move their viewers. How do dances appeal to or address their audiences? How do dance vocabulary, sequence, and timing affect audience? Answers to these questions in relation to broad range of artistic approaches, acknowledging that dance-making occurs distinctively in different cultural contexts and different historical moments. Different approaches to dance result in highly distinctive kinds of responses from audiences. Focus on creation of three in-depth studies, each of which endeavors to construct distinct and kind of response from viewers. P/NP or letter grading.

117C. Advanced Topics in Choreography. (4) Lecture, four hours; studio, two hours; outside study, six hours. Enforced requisites: courses 16, 67A, 67B. Directed exploration in composition, with focus on developing theme-based choreographic works that are informed by theoretical engagement with selected topics through lecture, reading, and discussion. Thematic topics include contemporary issues and concerns such as image, essence, and abstraction; home, history, and memory; interculturalism; constructing identities and difference. May be repeated for credit without limitation. P/NP or letter grading.

C122. Music and Dance Collaborations. (4) Studio, four hours. Requisites: courses 67A, 67B. Designed for dance students who have had prior coursework/experience in music and for music students who have had prior coursework/experience in music composition. Opportunity for directors, choreographers, and composers to work together creating and developing material in their respective disciplines. Exploration of different forms and ways of approaching creative process of making dance and music, presenting material on weekly basis, and developing skills for discussion. Concurrently scheduled with course C222. P/NP or letter grading.

C145XP. Selected Topics in Dance Studies. (4) Formerly numbered C145. Lecture, four hours; outside study, eight hours. Designed for juniors/seniors. Selected topics in study of dance and corporeality. Consequent Schedule of Classes for topics to be offered in specific term. May be repeated for credit with topic change. Concurrently scheduled with course C245XP. P/NP or letter grading.

C152. History and Theory of Modern/Postmodern Dance. (4) Lecture, four hours; studio, two hours; outside study, six hours. Introduction to key figures in creation of modern/postmodern movement skills for understanding and tracing of radical shift to postmodern dance that occurred in mid-20th century. Contemporary developments, both historical and theoretical. Student projects involve choreography and writing. Concurrently scheduled with course C252. P/NP or letter grading.

M157. Rechoreographing Disability. (Same as Disability Studies M157) Seminar, four hours. Through study of range of performance by, about, or featuring people who identify as disabled, reading and discussion of range of writing about experiences of disability and process of making work about disability by key artists and thinkers. Concept of choreography as political/cultural idea broadly defined as scored movement and organization and behavior of bodies, as well as choreography as poetic form for expression of ideas, creative tool, or product. Viewing, viewing and discussion of work, and embodying ideas through movement and dance-making. P/NP or letter grading.

158. Choreographing Gender. (4) Lecture, three hours; laboratory, four hours for junior/seniors. Analysis of aesthetic codes and theatrical choreographic approaches as they intersect with construction of gender in U.S., with close attention to race, class, and sexuality as they are combined. Examination of record and documentation of performances and production of critical writing. P/NP or letter grading.

160. Topics in Body Mechanics. (4) Lecture, three hours; studio, one hour. Designed for juniors/seniors. Variable topics course with discussion of injury prevention, anatomy for dancers, and study of biophysical and physical principles of human movement as related to dance. May be repeated for credit without limitation. P/NP or letter grading.

CM168. Beyond Academia: Making Art in Real World. (Same as World Arts and Cultures CM168) Lecture, four hours; outside study, eight hours. Designed for juniors/seniors. Focus on understanding bureaucratic structures and regional histories condition and shape the presentation of art as well as practical issues as publicity and grant-writing. Concurrently scheduled with course CM268. P/NP or letter grading.

170. Advanced Production. (1 to 2) Laboratory, three hours. Advanced-level study of production practices. Enforced requisites: course 70. Further development and application of practical perspectives on producing events in department, including but not limited to theatrical support and production of an executing lecture series. Provides students with advanced practical knowledge necessary, as well as opportunity to study nature of this component in world arts and cultures/dance studies. May be repeated for credit without limitation. P/NP or letter grading.

C171. Dance Production: Variable Topics. (4) Lecture, four hours; laboratory, two hours. Foundational experience in range of dance production practices, including but not limited to lighting design, set design, costume design, and stage management. Practical training in area covered, combined with theoretical inquiry and practical experience of students to reflect on their own work and that of others. Completion of production project may be repeated for credit without maximum of 12 units. Concurrently scheduled with course C277. P/NP or letter grading.

174A. Projects in Dance. (2) Laboratory, four hours. Individualized major projects in choreography, performance, cultural studies, production, and media. May be repeated for credit without limitation. P/NP or letter grading.

C174B. Projects in Dance. (Formerly numbered 174B) Laboratory, six hours. Individualized final showing, video viewing and comparison paper in choreography, performance, cultural studies, production, and media. May be repeated for credit without limitation. Concurrently scheduled with course C274B. P/NP or letter grading.

182. Dance and Visual Media. (4) Lecture, four hours; laboratory, two hours. Examination of aesthetic differences between dance, film, and video and exploration of new aesthetic when they are combined. Analysis of record and documentary dance film, choreo-cinema, and impact of MTV, as well as integration of media with performance. Letter grading.

C180. Dance for Camera. (4) Lecture, two hours; laboratory, two hours. Introduction to making dance for camera. Students acquire and apply basic video production tools for creating and producing movement-based projects. With rudimentary tools—to film, frame, set up shots, storyboard, design shot lists, and set-up lists, log and capture, edit, and export footage—students create their own dance for camera video projects. Students gain deeper understanding of conceptualization, practice, theory, history, and current state of dance for camera. Concurrently scheduled with course C280. Letter grading.

C184. Production Arts Seminar. (4) Seminar, four hours. Theory and practice of production administration, including hands-on case studies for producing public events in arts and academia. Topics include, but are not limited to, history and theories of producing, mission statements, budgeting, marketing, public relations, fund-raising, legalities, and archiving. Concurrently scheduled with course C243. P/NP or letter grading.

186A-186B. Senior Projects in Dance. (5–5) Lecture, four hours; outside study, 11 hours. Course 186A is requisite to 186B. Limited to senior Dance majors. Application of concepts, skills, and content from interdisciplinary major to individual projects. Methodologies may include critical, comparative, ethnographic, and performance approaches. Lecture/seminar format with Dance faculty during first term; faculty-directed presentations of individual projects during second term. Letter grading.
188SB. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to finalize course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced requisite: course 188SB. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to finalize course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth than in other courses, including research papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

Graduate Courses

211A-211E. Advanced Choreography. (4 each) Lecture, two hours; studio, two hours. Theoretical aspects of advanced choreography for students who have reached level of self-initiation of substantial creative works. Refinement and realistic self-evaluation; critical counsel by acknowledged choreographers. S/U or letter grading.

C222. Music and Dance Collaborations. (4) Studio, four hours. Requisites: courses 67A, 67B. Designed for dancers who have had prior coursework in music and for music students who have had prior coursework/experience in music composition. Opportunity for directors, choreographers, and composers to work together creating and developing material in their respective disciplines. Exploration of different forms and ways of approaching creative process of making dance and music, presenting mental and physical processes, and developing skills for discussion, critique, and review. Concurrently scheduled with course C122. S/U or letter grading.

C243. Production Arts Seminar. (4) Seminar, four hours. Theory and practice of production administration, including hands-on case studies for producing public events in arts and academia. Topics include, but are not limited to, history and theories of producing, mission statements, budgeting, marketing, public relations, fund-raising, legalities, and archiving. Concurrently scheduled with course C184. S/U or letter grading.

C245XP. Selected Topics in Dance Studies. (4) Formerly numbered C245.) Lecture, four hours; outside study, eight hours. Designed for graduate students. Selected topics in study of dance and corporeality. Consult Schedule of Classes for topics to be offered in specific terms. May be repeated for credit with topic change. Concurrently scheduled with course C145XP. S/U or letter grading.

C252. History and Theory of Modern/Postmodern Dance. (4) Lecture, four hours; studio, two hours; outside study, eight hours. Designed for graduate students. Examination of historical and theoretical developments, both historical and theoretical. Projective involvement in creation of modern dance, with special attention to their theories and philosophies and tracing of radical shift to postmodern dance that occurred in mid-20th century. Contemporary developments, both historical and theoretical. Project students involve choreography and writing. Concurrently scheduled with course CM252. S/U or letter grading.

C268A. Beyond Academia: Making Art in Real World. (4) Same as World Arts and Cultures CM268.) Lecture, four hours; outside study, eight hours. Designed for graduate students. Focus on understanding bureaucratic structures and regional histories conditioning creation of art in real world, including such practical issues as publicity and grant-writing. Concurrently scheduled with course CM168. S/U or letter grading.

C271. Dance Production: Variable Topics. (4) Lecture, four hours; laboratory, two hours. Foundational experience in range of dance production practices, including: management, design, and production of dance presentations. Completion of production project required. May be repeated for maximum of 12 units. Concurrently scheduled with course C171. S/U or letter grading.

C274B. Projects in Dance. (4) Laboratory, six hours. Individual research, writing, and presentation of study of dance. Letter grading.

C280. Dance for Camera. (4) Lecture, two hours; laboratory, two hours. Introduction to making dance for camera. Students acquire and apply basic video production skills for creation of movement-based projects. May be repeated for credit without limitation. Concurrently scheduled with course C174B. S/U or letter grading.

C306A. Advanced West African Dance. (2) Studio, three hours. Advanced-level study of dances originating from Mandingo culture in sub-Saharan Africa. May be repeated for credit without limitation. May be repeated for credit without limitation. Concurrently scheduled with course C106A. S/U or letter grading.

C409A. Advanced Hip-Hop Dance. (2) Studio, three hours. Advanced-level study of hip-hop movement practices. May be repeated for credit without limitation. Concurrently scheduled with course C109A. S/U or letter grading.

C412A. Advanced Special Topics. (2) Studio, three hours. Advanced-level study of variable movement practices. May be repeated for credit without limitation. Concurrently scheduled with course C112A. S/U or letter grading.

C413A. Advanced Ballet. (2) Studio, three hours. Advanced-level study of ballet as movement practice. May be repeated for credit without limitation. Concurrently scheduled with course C113A. S/U or letter grading.

C415. Advanced Modern/Postmodern Dance. (2) Studio, six hours. Advanced-level work in modern and/or postmodern movement practices. Teaching/training, with emphasis on increased understanding of movement principles and ability to apply these to performance. May be repeated for credit without limitation. Concurrently scheduled with course C115. S/U or letter grading.

C441. Dance Production Practicum. (2 to 4) Laboratory, four to eight hours (one or two hours may be individualized consultation). Skills and understanding of production components, including stage manager, production assistants, and producer. May be repeated for maximum of 8 units. S/U grading.

C452. Directed Field Study in Dance Education. (2 to 8) Seminar, one hour; field study, two hours minimum. Directed field study to provide teaching experience in community school or other approved site. No more than 4 units may be applied toward MA degree requirements. S/U grading.

C490. Projects in Choreography and Performance. (2 to 8) Tutorial, one three-hour rehearsal per unit per week minimum. Creation, casting, and rehearsing of culminating concert, reflecting professional achievement in choreography and performance, in first term. In second term, direction of on-stage rehearsals for culminating concert by each student leading to fully staged performance. May be repeated for maximum of 16 units. S/U or letter grading.

488. Professional Internship in Dance. (4, 8, or 12) Seminar, to be arranged. Full- or part-time supervised fieldwork. Limited to MFA students. Internship in dance, theater, film, or television organization. Participation in creative, administrative, technical work of professionals in their specialties. S/U or letter grading.

World Arts and Cultures

Lower-Division Courses

1. Introduction to World Arts and Cultures. (5) Lecture, three hours; discussion, one hour. Survey of concepts and theories involved in interdisciplinary study of art, aesthetics, and performance. Examination of interactions among various modes of creation, production, role of style in daily life, performative representation of cultural identity and difference, and interaction of diverse artistic traditions. Letter grading.

2. Lower-Division Seminar. (5) Seminar, four hours; outside study, 11 hours. Variable topics seminar with focus on scholarly and practice-based research in arts. In-depth investigations of topics ranging from body in cultural context, interdisciplinary art-making, and cultural studies. Study of the extent to which notions of aesthetics and efficacy are interwoven in people’s lives in active, instrumental ways. Use of Fowler Museum’s long-term exhibition entitled “Intersections: World Arts/Local Lives” as object of study to examine many insights that arts can offer into social, political, and religious experience. Drawing on cultures of Africa, Asia, Pacific, and Indigenous Americas, both ancient and contemporary, consideration of degree to which notions of aesthetics and efficacy are intertwined and interdependent in art forms made to intervene in people’s lives in active, instrumental ways. Use of specific case studies to illustrate and interrogate theoretical paradigms. P/NP or letter grading.

3. Colonialisms and Resistance. (5) (Same as American Indian Studies M10.) Lecture, three hours; discussion, one hour. Survey of selected Native North American cultures from pre-Western contact to contemporary period, with particular emphasis on early cultural diversity and diverse patterns of political, linguistic, social, legal, and cultural change in postcontact period. P/NP or letter grading.

24. World Arts, Local Lives. (8) Lecture, three hours; discussion, three hours. Use of Fowler Museum’s long-term exhibition entitled “Intersections: World Arts/Local Lives” as object of study to examine many insights that arts can offer into social, political, and religious experience. Drawing on cultures of Africa, Asia, Pacific, and Indigenous Americas, both ancient and contemporary, consideration of degree to which notions of aesthetics and efficacy are intertwined and interdependent in art forms made to intervene in people’s lives in active, instrumental ways. Use of specific case studies to illustrate and interrogate theoretical paradigms. P/NP or letter grading.
art, mythology, ritual, health practice, languages, and ecology. With examples spanning globe, consideration of issues of colonialism, tradition, religious change, and implications of the logical differences between people. Examination of critical perspectives on social development, historical progress, and intellectual assimilation. P/NP or letter grading.


55. Intermediate World Arts Practices in Global and Transcultural Forms. (2) Studio, three hours; outside study, three hours. Intermediate-level study of world arts practices crossing national and cultural boundaries. Variable topics, such as body music, cross-cultural textile creation, or mural painting, in cultural and historical context. May be repeated for credit without limit. P/NP or letter grading.

78. Private Instruction in World Arts and Cultures. (2 to 4) Studio, one to four hours. Designed for freshmen/sophomores. Private or semiprivate instruction in one world arts practice with distinguished community practitioners. Requirement arranged by students and approved by instructor. May be repeated for maximum of 24 units. P/NP grading.

M79. Food Politics: Cultural Solutions to Political Problems. (5) (Same as Food Studies M79.) Lecture, four hours; discussion, one hour. Examination of issues of environmental and public health effects of intensive and extensive agriculture, influence of corporations on government, animal ethics, food deserts and urban agriculture, and food insecurity. Focus on representation of such issues in documentaries, public lectures, memoirs, novels, and visual art, as well as on initiatives to address such problems through policy and activism. P/NP or letter grading.

80. Video Tools and Techniques. (2) Laboratory, four hours. Introduction to video tools and practices to train students in key techniques of video production. Basic skills spanned to develop short videos for circulation via DVD and/or Internet. Practical exercises based on material and instruction provided in class, spanning production and postproduction processes of video making. Evaluation of students on these exercises and ability to create and edit sequences of any or all materials developed during course. Training in technical aspects of video production and usage of video tools. P/NP or letter grading.

85. Sophomore Seminar. (5) Lecture, 90 minutes. Planning and execution of proposal for junior year of study, with attention to exploring resources of department and University as whole. P/NP grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be repeated for credit with topic change. P/NP or letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual program consult Undergraduate Research Center. May be repeated. P/NP grading.

100A. Art as Social Action. (5) Lecture, four hours; discussion, one hour. Designed for juniors/seniors. Discussion of what constitutes artist’s social responsibility as well as the best way to qualify to engage in direct political action. Study of tension between powers of this world and powers of art. P/NP or letter grading.

100B. Art as Moral Action. (5) Lecture, four hours; discussion, one hour. Designed for juniors/seniors. One’s ability to distinguish between right and wrong depends on the nature of one’s actions and their consequences. Study of cultural strategies of moral engagement, persuasion, and inquiry in personal and public life, including acts of conscience and civil disobedience. P/NP or letter grading.

101. Theories of Performance. (5) Lecture, four hours; studio, two hours. Performance commonly refers to activities on proscenium stage. Explosion of that narrow notion of performance by delving into scholarship from young fields such as performance studies, which draws on disciplines of anthropology, cultural studies, gender studies, linguistics, postcolonial theory, and sociology. Exploration in studio of concept of performance and its disciplinary and performative practices in multi-disciplinary performance works that engage with and amplify theories studied. P/NP or letter grading.

102. Upper-Division Seminar. (5) Seminar, three hours. Variable topics seminar with focus on advanced practice-based research arts. In-depth investigations of topics addressing variable array of art genres including drawing, musical composition, painting, performance poetry, sculpture, stand-up comedy, and therapy music. Exploration of generation and expansion of art works supported by readings, assigned written analysis, supervised fieldwork, individual and collaborative assignments, and/or practice-oriented projects. Determining project in integrating theoretical and practical components of selected seminar topic required. May be repeated once for credit. Letter grading.

103. Arts in Communities. (5) Lecture, four hours. Introduction to theoretical and practical understanding of field of community arts by and for multiple publics. Review of relevant issues in field and exploration of roles of arts and other organizations in struggles for social change, representation, and community building. Through national and international examples, exploration of art works that emphasize participation of citizens and use of cultural relevant performance, art, and exhibition. Examination of processes of creative thinking, community involvement, collaborative enterprise, research, and education in community arts. Letter grading.


CM113B. Legislative Theater for Race and Gender Justice. (5) (Same as African American Studies CM113B.) Lecture, three hours; discussion, one hour (when scheduled). Exploration and application of range of interactive methods and arts-based strategies with participants from UCLA and broader Los Angeles community in order to research and influence public policy and legislative change. Students and campus partners create and perform legislative theather addressing issues of race, gender, and criminal-justice system. Critical texts, collaborative work, and creative methods are used to engage perspectives on justice. Analysis of diverse and growing body of work on systems of research, work, workshops, performances, and critiques of original writings and developments performed in response to writing scholars and community partners. Concurrently scheduled with course CM125B. P/NP or letter grading.

M113D. Spoken Word Workshop: Creative Writing and Performance Practicum. (4) (Same as African American Studies M113D.) Enroll by consent of instructor. Shaped by, and consistently inspiring, broader movements for social and political change, practice of spoken word today provides creative outlet for performers worldwide by resisting and remixing elements of traditional verse, participatory theater, and popular culture. To develop writing and performance skills, and to deeply understand selection of poets and performing artists who have shaped spoken word as known today, investigation of aesthetics and political movements of their time through critical essays and poetry from range of influential movements. P/NP or letter grading.

114. Performance Practicum. (1 to 4) Studio, three to 12 hours. Rehearsal and performance in selected community-based or theatrical work. May be repeated for credit without limitation. P/NP grading.

120. Selected Topics in Cultural Studies. (4) Lecture, three hours. Designed to cover selected topics in interdisciplinary study of arts and performance in cultural and historical context. Consult Schedule of Classes for topics to be offered in specific term. May be repeated for credit with topic change. P/NP or letter grading.

121. Ethnography and Performance. (4) Lecture, four hours; outside study, eight hours. Survey of some ways that ethnography and performance intersect, and as development or some preliminary approaches to effectively document performance events. Reading of ethnographies of performances, as well as consideration of how performances can work effectively, P/NP, S, N, audit.

122. Healing across Cultures. (5) Lecture, two and one half hours; discussion, one hour. Examination of multiple traditions of healing as recorded across cultures, including acts of conscience and civil disobedience. P/NP grading.

123. Introduction to Field-Based Research Methods. (5) Lecture, three hours. Introduction to methods, techniques, and issues in conducting field-based research, including data gathering procedures, ethical concerns, sampling, checks and controls, teamwork, interventions, and results as not only tangible and impersonal output of inquiry but also of intangibles that can be used to inform practice. Through readings, discussion, and hands-on exercises, students learn how to plan fieldwork projects and write proposals, prepare consent forms and deal with cultural issues, construct questionnaires, interview, use audiovisual documentation, and manage and present data. P/NP or letter grading.

M125A. Beyond Mexican Mural: Beginning Muralism and Community Development. (5) (Same as Art M186A and Chicana/o and Central American Studies M186A.) Studio/lecture, four hours. Corequisite: course M125AL. Investigation of muralism as method of community education, development, and empowerment. Exploration in conceptual development of large-scale collaborative digitally created image and/or painting for placement in community. Students research, design, and work with community participants. P/NP or letter grading.

M125AL-M125BL-M125CL. Beyond Mexican Mural: Muralism and Community Laboratory. (4–2–2) (Same as Art M186AL-M186BL-M186CL and Chicana/o and Central American Studies M186AL-M186BL-M186CL.) Course M125AL is requisite to M125BL, which is requisite to M125CL. Mural and Digital Laboratory is art studio housed at Social and Public Art Resource Center in Venice, CA, where students work in community-based setting. Open to students during scheduled hours with laboratory tech support, it offers instruction as students independently in collaborative design, drafting, and produce large-scale painted and digitally generated murals to be placed in community setting. P/NP or letter grading. M125AL. Beginning, Laboratory, four hours. Corequisite: course M125A, M125BL. Interme...
M125 CL. M125A, M125AL. Corequisite: course M125B; 874 / World Arts and Cultures/Dance (Same as Art M125C. Beyond Mexican Mural: Advanced Mural production to full scale and community approval. P/NP participants. Continuation of project through states of production, full scale and community approval. P/NP or letter grading.

M125C. Beyond Mexican Mural: Advanced Muralism and Community Development. (4) Same as Art M186B and Chicana/o and Central American Studies M186B.) Studio/lecture, four hours. Prequisites: courses M125A, M125AL. Corequisite: course M125BL. Continuation of investigation of muralism as method of community education, development, and empowerment. Exploration of issues through development of large-scale collaborative digitally created image and/or painting for placement in community. Students research, design, and work with community participants. Continuation of project through installation, documentation, and dedication, with work on more advanced independent projects. P/NP or letter grading.

M125M. Whose Monument Where?: Course on Public Art. (4) Same as Art M185 and Chicana/o and Central American Studies M185.) Lecture, four hours. Recommended corequisite: course M125A, M125B, or M125C. Examination of public monuments in U.S. as basis for cultural insight and critique of American values from perspective of artist. Use of urban Los Angeles as textbook in urban space issues such as who is public, who speaks in public, what defines neighborhoods, and do different ethnic populations use public space differently. P/NP or letter grading.


C129. Food Customs and Symbolism. (4) Lecture, three hours. Designed for juniors/seniors. Introduction to foodways, with particular attention to customs and symbolism in America. Topics include sensory realm, child rearing, eating, food and identity, and food and its emotional significance, aversions and taboos, advertising, changing food habits, and American diet. Concurrently scheduled with course C229. P/NP or letter grading.


144. Make Art/Stop AIDS. (8) Lecture, four hours studio, two hours, eight hours. What is AIDS? Is it central question posed here in relation to global AIDS epidemic. Working in close connection with public health and social service organizations, development of effective tool in AIDS prevention and treatment efforts. Review of literature of AIDS cultural analysis that emerged in late 1980s in U.S. and application of that literature to international hot spots such as India, China, South Africa, and Brazil. Collaborative theory-in-action projects. P/NP or letter grading.


C146. Politics of Performance. (4) Seminar, four hours; outside study, eight hours. Designed for juniors/seniors. Opportunity to reflect on artists and intellectuals as cultural workers operating in domains of ideology, aesthetics, and theory. Analysis of such keywords as ideology, aesthetic, performance, influence, and public readings of artists and intellectuals, and artists. Concurrently scheduled with course CC246. P/NP or letter grading.

150. Critical Ethnographies. (5) Lecture, three hours. Ethnography as ideology. Survey of methods and tropes and rhetorical strategies to explicitly locate ethnographic method as key component of cross-cultural understanding. Examination of categorical notions of insider and outsider while also developing various perspectives on performed acts of identity formation. Concurrently scheduled with course CC250. P/NP or letter grading.


C152. Visual Cultures. (4) Lecture, three hours. How are ways of seeing constructed through culture, gender, religion, class, and nation? Theories and case studies from around world permit understanding of social processes through which gaze is determined and image economies negotiated. Topics include scopic regimes, aesthetics of streamlined design, and visibility and liberation. Concurrently scheduled with course CC252. P/NP or letter grading.

C158. Theorizing Art Activism. (4) Seminar, three hours. Historicizing and theorizing of art activism to provide context for concerted analysis, creation, and production. Readings include theoretical texts and current performances. Consideration of one particular activist project, with focus on ongoing activism sponsored by UCLA Art and Global Health Center. Art as tool of social change, organized by artists members supported and encouraged. Concurrently scheduled with course CC258. P/NP or letter grading.

C159. Art and Global Health. (4) Seminar, three hours. Focus of interdisciplinary research on arts-based methodologies in pursuit of improved health outcomes, using examples from international projects created and supported by UCLA Art and Global Health Center. Readings include, one by artists and arts scholars and articles from public health and medical literature. Seminar members propose their own arts-based health promotion interventions. Concurrently scheduled with course CC259. P/NP or letter grading.

160. Performing Sexual Health: UCLA Sex Squad. (4) Seminar, three hours. Exploration of activist sexual health education theater as it has been used both locally and globally. Examination specifically of how humor, personal narrative, and nonjudgmental pro-sex approaches have been utilized to open empowering and educational dialogues about sexual health by and for diverse range of communities. Intensive training on sexual health, HIV/AIDS, with a focus on organizing and planning of artists’ interventions to open urgent dialogues on these taboo topics. May be repeated for maximum of 12 units. P/NP or letter grading.

C172. Academic Making Art in Real World. (4) Same as Dance CM168.) Lecture, four hours; outside study, eight hours. Designed for juniors/seniors. Focus on understanding bureaucratic structures and regional histories conditioning creation of art in real world, including such practical issues as publicity and grant-writing. Concurrently scheduled with course CM268. P/NP or letter grading.

C173. Sound Resources for Performance. (4) Lecture, four hours; studio, eight hours. Designed for music majors. Exploration of music, in search of interesting, new, and unusual. Investigation of musical possibilites via record store, internet, and music library of avant-garde and recent sounds; body (clapping, stepping, and singing); and hardware store (found sound). Participants collaborate with fellow students in creative efforts and in presentation of research findings. Concurrently scheduled with course CC273. P/NP or letter grading.

174A. Projects in World Arts and Cultures. (2) Laboratory, four hours. Individualized major projects in choreography, performance, cultural studies, production, and media. May be repeated for credit. P/NP or letter grading.

174B. Projects in World Arts and Cultures. (4) Laboratory, six hours. Individualized major projects in choreography, performance, cultural studies, production, and media. May be repeated for credit. P/NP or letter grading.
177XP. Taking Action: Arts Practice and Community Service. (4) Formerly numbered 177SL.) Seminar, four hours; outside study, eight hours. Enforced requisite: course C184. Designed for juniors/seniors. Application of training in world arts and cultures through service projects designed by students in collaboration with selected community organizations and institutions. Reflection on impact of service on communities and theories. May be repeated once for credit. P/NP or letter grading.

178. Advanced Private Instruction in World Arts and Cultures. (2 to 8) Studio, three to 12 hours. Designed for juniors/seniors. Private or semiprivate instruction in one world arts practice with distinguished community-based artist to be arranged by students and approved by instructor. May be repeated for maximum of 24 units. P/NP grading.

M179. Food Activism in Los Angeles: Narrating Pasts, Imagining Futures. (4) Same as Food Studies M179.) Lecture, two hours; discussion, two hours. Introduction to history and praxis of local interventions into food insecurity and the food system, including community gardens, pop-up markets, and care farms. Through ethnographic and oral history methodologies, students learn how food activists organize themselves, their history of power, and their tools to counteract injustices. Focus on relationships between food access, food politics, and food ethics; and social histories of race, class, urban planning, and housing discrimination. P/NP or letter grading.

C180. Variable Topics in Video Production/Practice. (4) Lecture, two hours; laboratory, two hours. Enforced requisite: course 80. Training in low-budget and independent video and documentary practice as research tool. Visual ethnography combined with experimental film. Introduction to history, ethics, and aesthetics of documenting subjects such as culture, performance, and dance. Focus on both expression and experience. Film and documentary theory, ethnography, and phenomenology used to create innovative and critical forms of visual documentation. Skills include shooting, sound recording, interview, and editing. May be repeated for credit. Concurrently scheduled with course C280, Letter grading.

181. Ethnographic Film. (4) Lecture, four hours. Survey of ethnographic film and video, with focus on studies of expressive culture. Emphasis on critical and comparative approaches to visual study of culture, community, and arts. P/NP or letter grading.


185. Junior-Year Proposal. (1) Lecture, 90 minutes; outside study, 90 minutes. Limited to World Arts and Cultures majors. Planning and execution of proposal (either senior focus or honors project) for senior-year study, with attention to exploring resources of department and University at large. May be repeated for credit. P/NP grading.

186A-186B. Senior Honors Projects in World Arts and Cultures. (5–8) Lecture, four hours; outside study, 11 hours. Course 186A is required to 186B. Limited to senior World Arts and Cultures majors. Application of conceptual and content from interdisciplinary major and independent projects. Methodologies may include critical, comparative, ethnographic, and performance approaches. Lecture/semester format with World Arts and Cultures faculty during first term; faculty-directed presentations of individual projects during second term. Letter grading.

M187. Indigenous Film. (8) Same as American Indian Studies M187.) Lecture, three hours; discussion, one hour. Introduction to study of indigenous films and representations, with focus on selected ethnographic, documentary, animated, and feature films ranging from 1920 to present. P/NP or letter grading.

188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced requisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to finalize course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.


188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced requisite: course 188SB. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE 88S course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

195. Community or Corporate Internships in World Arts and Cultures. (2 to 4) Tutorial, six hours. Internship in supervised setting in community agency or business. Students meet on regular basis with instructor and provide periodic reports of their experiences. May be repeated for maximum of 8 units. Individual contract with supervising faculty member required. P/NP or letter grading.

199. Directed Research in World Arts and Cultures. (2 to 5) Tutorial, two hours. Preparation: 3.0 grade-point average in major. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty member. Paper or project required. May be repeated for maximum of 10 units. Individual contract required. P/NP or letter grading.

Graduate Courses

200. Theories of Culture. (4) Seminar, three hours; outside study, nine hours. Introduction to history of culture concept in arts, humanities, and social sciences. Analysis of contemporary debates concerning ownership and uses of world culture, and critical elucidation of study of culture. S/U or letter grading.

201. Theories of Performance. (4) Seminar, three hours; outside study, nine hours. Close reading and analysis of classic and contemporary studies of performance and related aesthetic practices. Familiarization with ways in which performance is defined and deployed by scholars working in disciplines of anthropology, dance, folklore, linguistics, literature, musicology, performance studies, philosophy, sociology, and theater. S/U or letter grading.

202. Research Methodologies. (4) Seminar, three hours; outside study, nine hours. Hands-on course designed to help students develop understanding of many developed qualitative research methods and designs they encounter in their work. Identification and creation of research problems, development of designs, actual data collection, and analysis procedures to address those problems. S/U or letter grading.

203. Proseminar: Dance Studies. (4) Seminar, three hours; outside study, nine hours. Survey of theoretical issues and problems in study of dance and body movement in cultural, social, and historical context. S/U or letter grading.

204. Theories of Corporeality. (4) Seminar, three hours; outside study, nine hours. Cross-cultural and interdisciplinary perspectives on human body. Topics include representations of bodies and identities, and analysis of dance and other somatic modes of performance. S/U or letter grading.

207. Ethnography of Performance. (4) Seminar, three hours; outside study, nine hours. Survey of methodologies in ethnographic study of performance in cultural context. Field documentation, participant observation, oral history and interview techniques, performative dimensions of ethnographic research, ethnics, and politics of ethnographic representation. S/U or letter grading.

210. Ethnography of and as Colonialism. (4) Seminar, three hours. Beginning with 1560 debates over Indian humanity and ranging to contemporary scholarship about and by indigenous peoples, focus on intersections of writing, colonialism, violence, and historiography in America. Exploration of relationship between eighteenth- and nineteenth-century, Western, and academic practices of writing history. Development of critical stance on utility of colonial theories as perspectives bear on anthropological and historical studies of indigenous religiosity. Regions include southwest Columbia, Orinoco Delta in Venezuela, Valley of Mexico, and several examples: throughout the Southwest, plains, and northeast. S/U or letter grading.

CM213B. Legislative Theater for Race and Gender Justice. (5) Same as African American Studies CM213B.) Lecture, three hours; discussion, one hour (when scheduled). Examination of range of interactive methods and arts-based strategies with participants from UCLA and broader Los Angeles community in order to research and influence public policy and legislation. Students design and campus partners create and perform legislative theater addressing issues of race, gender, and criminal justice system. Critical texts, collaborative work, and creative methods are used to engage perspectives on justice. Analysis of diverse and growing body of work on systems of justice through research, writing, workshops, performances, and critiques of original workshops and performances in response to visiting scholars and community partners. Concurrently scheduled with course CM113B. S/U or letter grading.

216. Analyzing Narrative and Oral Performance. (5) Lecture, four hours. Designed for graduate students. Exploration of ways of documenting individual narrators and interpreting their styles and repertoires; how narrators conceptualize and perform narrative discourse, impact of audience and situated event on both narrating and story, how experiences and values are communicated through narrating, modes of representing oral narrating, and politics of narrative and oral performance. S/U or letter grading.

220. Seminar: Culture and Performance. (4) Seminar, three hours; outside study, nine hours. Designed for graduate students. Variable topics in interdisciplinary study of performance and social and historical context. May be repeated for credit with topic change. S/U or letter grading.

C229. Food Customs and Symbolism. (4) Lecture, three hours; outside study, five hours. Exploration of range of interactive methods and arts-based strategies with participants from UCLA and broader Los Angeles community in order to research and influence public policy and legislation. Students design and campus partners create and perform legislative theater addressing issues of race, gender, and criminal Justice system. Critical texts, collaborative work, and creative methods are used to engage perspectives on justice. Analysis of diverse and growing body of work on systems of justice through research, writing, workshops, performances, and critiques of original workshops and performances in response to visiting scholars and community partners. Concurrently scheduled with course CM113B. S/U or letter grading.

CM230. Space and Place. (4) (Same as Architecture and Urban Studies CM230.) Lecture, three hours. Survey of array of spaces and places from cross-cultural or comparative perspective and with performance emphasis, with focus on mutual interaction of World Arts and Cultures/Dance / 875
human beings and their created environments. Emphasis on common, ordinary, anonymous, or vernacular nonbuilt and built environments, which are built and used by ordinary people. Focus on transitional communities around world. Concurrently scheduled with course CM130. S/U or letter grading.

C238. American Indian Arts in Performance. (4) Seminar, four hours. Acquisition of awareness and sensitivity to American Indian arts traditions within Native American worlds of performance and material culture and development of ability to focus on them and learn to conduct research on them. Examination of wide range of American Indian dance traditions within their possible range of such contexts, with performance given its most generous definition. Study of spectrum of genres, including architecture, social and dance re-galia, masks, and utilitarian material culture, to investigate how such items play their part and come alive through movement, sound, spoken word, silence, and even dreams and visions. Concurrently scheduled with course C139. S/U or letter grading.

C239. Afro-Caribbean Ritual Arts. (4) Lecture, three hours. Designed for graduate students. Introduction to diaspora African religions, with particular attention to Caribbean culture. Lectures, readings, and video material focus on ritual and its expression in religious art. Concurrently scheduled with course C139. S/U or letter grading.

CM240XP. Healing, Ritual, and Transformation. (4) (Formerly numbered CM243XP) Lecture, four hours; outside study, eight hours. Designed for graduate students. Examination of how various cultures think of health and wellness, not only individually but collectively. Exploration of structural inequalities within health care and medical sciences. Students are required to contribute weekly to service learning component, working with individuals and organizations in fields of health and wellness including healers, non-profits, and organizations working for social justice. May be concurrently scheduled with CM140XP. Letter grading.

C242. Myth and Ritual. (4) Lecture, four hours; outside study, eight hours. Designed for graduate students. Examination of how various cultures think of health and wellness, not only individually but collectively. Exploration of structural inequalities within health care and medical sciences. Students are required to contribute weekly to service learning component, working with individuals and organizations in fields of health and wellness including healers, non-profits, and organizations working for social justice. May be concurrently scheduled with CM140XP. Letter grading.


C250. Critical Ethnographies. (5) Lecture, three hours. Enforced prerequisite: course 20 or 33. Survey of major tropes and rhetorical strategies to explicitly locate ethno-graphic method as key component of cross-cultural understanding. Examination of categorical notions of insider and outsider while also developing various perspectives on performance arts of identity formation. Concurrently scheduled with course C150. S/U or letter grading.


C252. Visual Cultures. (4) Lecture, three hours. How are ways of seeing constructed through culture, gender, religion, class, and nation? Theories and case studies from around the world. Emphasis on how social processes within which gaze is determined and image economics negotiate. Topics include scopic regimes, aesthetics of streamlined design, and visibility and liberation. Concurrently scheduled with course C20. S/U or letter grading.

C258. Theorizing Arts Activism. (4) Seminar, three hours. Historicizing and theorizing of arts activism to provide context for concerted analysis, creation, and promotion of a world of art. Emphasis on theoretical texts and current performance histories. Consideration of one particular activist project, with focus on ongoing activism sponsored by UCLA Art and Global Health Center. Arts activist projects and members supported and encouraged. Concurrently scheduled with course C158. S/U or letter grading.

C259. Art and Global Health. (4) Seminar, three hours. Exploration of interface of arts- and health-based methodologies in pursuit of improved health outcomes, using examples from international projects created and supported by UCLA Art and Global Health Center. Readings include texts by artists and arts scholars, and articles from health and medical literature. Seminar members propose their own arts-based health promotion interventions. Concurrently scheduled with course C159. S/U or letter grading.

CM166. Art in Real World. (4) (Same as Dance CM266.) Lecture, four hours; outside study, eight hours. Designed for graduate students. Focus on understanding bureaucratic structures and regional histories conditioning creation of art in real world, including such practical issues as publicity and grant-writing. Concurrently scheduled with course CM168. S/U or letter grading.

C273. Sound Resources for Performance. (4) Lecture, three hours; studio, one hour; outside study, eight hours. Designed for graduate students. Exploration of music, in search of interesting, new, and unusual. Investigation of musical possibilities via record store, Internet, and music library; environmental sounds and patterns; body (clapping, stepping, and singing); and hardware store (found sound). Participants collaborate with fellow students in creative efforts and in presentations of research results. Concurrently scheduled with course C173. S/U or letter grading.

C280. Variable Topics in Video Production/Practice. (4) Lecture, two hours; laboratory, two hours. Enforced prerequisite: course 104. Focus on video and independent video and documentary practice as research tool. Visual ethnography combined with experimental film. Introduction to history, ethics, and aesthetics of documentary subjects, storytelling, performance, and dance among range of forms for bodily expression and experience. Film and documentary theory, ethnography, and phenomenology used to create innovative and critical forms of visual documentation. Skills include cinematography, sound recording, interviews, and digital editing. May be repeated once for credit. Concurrently scheduled with course C180. Letter grading.


375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprenticeship personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

400. Directed Professional Activities. (2 to 8) Lecture, to be arranged. Directed projects in professional education, bibliography, filmmography, videography, conference and festival direction, and other professional activities. May not be applied toward MA degree requirements. May be repeated. S/U grading.

451. Teaching Assistant Seminar. (2) Seminar, one hour; laboratory, three hours. Required of all World Arts and Culture Department teaching assistants. Lectures, discussion, readings, and practice teaching. May be repeated once for credit. S/U grading.

478. Advanced Private Instruction in World Arts and Cultures. (2 to 8) Studio, three to 12 hours; outside study, three to 12 hours. Private or semiprivate instruction with distinguished community-based artist to be arranged by students and approved by instructor. May be repeated for maximum of 24 units. S/U grading.

480. Seminar: Research Topics. (2 to 4) Seminar, two to four hours outside study, to be arranged. Forum in which faculty, students, and visitors make presentations and obtain feedback on research being planned, conducted, or recently completed. Students required to make minimum of one presentation each term they are enrolled for credit. May be repeated for maximum of 4 units. S/U grading.

495. Teaching Assistant Seminar. (2) Seminar, one hour; laboratory, three hours. Required of all World Arts and Culture Department teaching assistants. Lectures, discussion, readings, and practice teaching. May be repeated once for credit. S/U grading.

496. Teacher Preparation in World Arts and Cultures. (2) Seminar, two hours. Directed work in preparation for syllabi and gather resources for courses. Topics include development of teaching philosophy, evaluation/selection of course content, teaching methodologies, assessment/evaluation/grading practices, and consideration of practical, administrative, and ethical issues. Students meet with instructor to review their specific needs as they progress in development and elaboration of course plans. Microteaching sessions provide context for applying concepts and principles discussed. S/U grading.

596A. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. S/U or letter grading.

596F. Directed Study or Research in Hospital or Clinic. (2 to 8) Tutorial, to be arranged. S/U grading.

597. Preparation for Master's Comprehensive Examination or PhD Qualifying Examination. (2 to 8) Tutorial, to be arranged. Preparation for MA or MFA comprehensive examination or PhD qualifying examination. S/U grading.


Writing Programs
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Overview
Writing Programs is committed to inclusive pedagogy and student success, serving undergraduates through a curriculum in composition and English as a second language (ESL), as well as through the Undergraduate Writing Center (UWC). Writing Programs serves as the chief resource for writing and English language instruction through entry-level writing, first-year composition, writing-in-the-disciplines, and professional writing courses. Its courses play a vital role in preparing undergraduates from diverse linguistic and academic-skill backgrounds to succeed as writers/communicators in their UCLA studies as well as in future professional contexts. Writing Programs’ courses facilitate discovery, understanding, analysis, inspiration, community building, and global citizenship.

In addition, Writing Programs serves international graduate students as writers and communicators through graduate-level academic writing courses that satisfy the UCLA ESL requirement, elective writing workshops, and oral communication courses for international students who plan to serve as TAs and need to satisfy the Test of Oral Proficiency (TOP) requirement.

During the summer, matriculated UCLA students can complete some of their undergraduate writing requirements. Writing Programs also offers international summer visitors a suite of second language writing and communication courses.

Writing Programs works closely with the Office of Equity, Diversity, and Inclusion to help all students experience academic belonging, and bring together members of the UCLA and Los Angeles communities through service learning courses, summer bridge programs for high school students, the UCLA prison education program, and public events. Writing Programs educational initiatives promote the impact of writing, write large, around issues of self expression, public discourse, diversity, and experiential learning.

Undergraduate Study
The undergraduate curriculum develops writing skills in linguistic, visual, and digital forms, and encourages students to see the classroom as a place to be challenged by new ideas, to investigate, problem-solve, reflect, imagine, think and rethink, and ultimately, to learn. Writing Program’s undergraduate teaching mission is extended by the UWC, which aids thousands of students annually from all disciplines and all divisions at UCLA to communicate effectively in their coursework.

Entry-Level Writing
Every student who does not satisfy the Entry-Level Writing requirement by presenting transfer credit or acceptable test scores is required to take, as early as possible during the first year in residence, English Composition 1, 1A, 1B, 2, or 2I as determined by performance on the Analytical Writing Placement Examination (AWPE). Students who have not otherwise satisfied the Entry-Level Writing requirement and who have not taken the AWPE before entering UCLA must take it in their first term. For more information, see Entry-Level Writing in Undergraduate Study.

English as a Second Language Requirement
All entering undergraduate students whose native language is not English and who have not otherwise satisfied the English as a Second Language (ESL) requirement may be required to take one or more English composition courses designed for multilingual students (1A, 1B, 2I). First-year undergraduate students are placed in the courses based on the AWPE. Transfer students are placed in the courses based on the UCLA English as a Second Language Placement Examination (ESLPE). Transfer students who are required to take the ESLPE include those who have not yet satisfied the Intersegmental General Education Curriculum (IGETC), and those held at the discretion of Undergraduate Admission. The ESLPE may be taken once only.

Graduate Study
A curriculum in writing pedagogy for graduate students is also offered. Graduate writing instructors from across campus benefit from intensive writing pedagogy training as preparation for teaching freshman composition (satisfies Writing I requirement) and writing in the disciplines (satisfies Writing II requirement).

Writing Programs also provides writing pedagogy training for teaching assistants (TAs) in the Samueli School of Engineering, and the general education freshman cluster program, and the Freshman Summer Program and Transfer Summer Program in partnership with the Academic Advancement Program. Teaching assistants interested in expanding their professional teaching profile as writing specialists can pursue a graduate certificate in Writing Pedagogy, and participate in the certificate annual teaching symposium.

English as a Second Language Requirement
All entering graduate students whose native language is not English and who have not otherwise satisfied the English as a Second Language (ESL) requirement may be required to take one or more ESL courses. Students are placed in the courses based on the UCLA English as a Second Language Placement Examination (ESLPE) and may be held for up to two ESL courses (300, 301).

The following students are exempt from the ESL requirement: students who hold a bachelor’s or higher degree from a university located in the U.S. or in another country (e.g., Australia, Barbados, Canada, Ireland, Jamaica, New Zealand, United Kingdom) in which English is both the primary spoken language of daily life and the medium of instruction, or who have completed at least two years of full-time study at such an institution; and students with a score of 100 or better on the Test of English as a Foreign Language Internet-Based Test (TOEFL iBT), or at least a 7.5 overall band score on the International English Language Testing System (IELTS) examination. See International Applicants in Graduate Study.
Graduate Certificate
Writing Programs offers a graduate certificate in Writing Pedagogy.

English as a Second Language
Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

20. Conversation and Fluency. (4) Lecture, four hours. Emphasis on speaking fluently in English by examining rules of conversation, participating actively in class discussions, making group presentations, and completing out-of-class assignments designed to promote interaction with native speakers and familiarize international students with UCLA campus and local community. Offered in summer only. P/NP or letter grading.

21. Pronunciation. (4) Lecture, four hours. Designed to improve clarity, accuracy, and understanding of spoken English through study and practice of pronunciation features as they occur in real speech, using models from television, movies, and online talks. Emphasis on individualized feedback through audorecording and videorecording technology. Offered in summer only. P/NP or letter grading.

22. Public Speaking. (4) Lecture, four hours. Emphasis on making presentations, interacting with audience members, and leading group discussions. Videorecording of student performances to allow students to improve through self and peer evaluation, as well as through individualized instructor feedback. Offered in summer only. P/NP or letter grading.

24. Preparation for American Universities. (4) Lecture, four hours. Designed for international students planning to study at American universities. Students research suitable undergraduate or graduate programs, interview advisers at local universities, and learn to write effective personal statements. Additional focus on understanding American society, listening, and speaking skills. Offered in summer only. P/NP or letter grading.

25. Academic Reading and Writing. (4) Lecture, four hours. Designed to improve reading speed, comprehension, and knowledge of academic writing conventions. Emphasis on synthesizing information from sources, providing proper citations, and avoiding plagiarism. Focus on development of ability to revise and edit one's own written work. Offered in summer only. P/NP or letter grading.

26. Business Communication: Speaking. (4) Lecture, four hours. Emphasis on giving business and marketing-focused presentations (both individual and group), handling audience questions, and running effective meetings. Videorecording of student performances to allow students to improve through self and peer evaluation, as well as through individualized instructor feedback. Offered in summer only. P/NP or letter grading.

27. Business Communication: Writing. (4) Lecture, four hours. Emphasis on writing persuasive texts for diverse business audiences. Topics include writing effective summaries, creating outlines, and developing professional online profiles. Offered in summer only. P/NP or letter grading.

28. English through Language, Culture, and Society. (4) Lecture, four hours. Survey of selective language structures through their occurrence within contemporary cultural and societal topics within thematic, content-based English language learning environment. Focus on understanding and applying these structures to improve fluency while enhancing critical thinking skills. Emphasis on understanding and applying written/spoke assignments that situate language within authentic contexts. Topics may include gender, sexuality, politics, humor, intercultural communication, media, international issues, and local/regional issues. P/NP or letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

97A. Variable Topics in English as a Second Language. (4) Lecture, four hours. Specialized topics in English as second language or English for academic purposes. Emphasis on focusing to topics covered/or and audience to whom course is directed. May be repeated for credit with topic change. Offered in summer only. P/NP (undergraduates), S/U (graduates), or letter grading.

97B. Variable Topics in English as a Second Language Placement Examination. (2) Lecture, one hour. May be repeated for credit with topic change. Offered in summer only. P/NP or letter grading.

97C. Variable Topics in English as a Second Language Placement Examination. (1) Seminar, one hour. May be repeated for credit with topic change. Offered in summer only. P/NP or letter grading.

103. Pronunciation for Multilingual Students. (4) Lecture, four hours. Emphasis on accurate articulation of sounds, word stress, rhythm, linking between syllables, intonation, and other features of fluent spoken English, using variety of videorecorded models and online pronunciation resources. Individualized feedback provided through frequent recorded assignments. P/NP or letter grading.

105. Advanced Grammar and Style for Multilingual Students. (4) Lecture, five hours. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

300. Intermediate Writing and Communication for International Graduate Students. (4) Lecture, five hours. Enforced requisite: proficiency demonstrated on English as a Second Language Placement Examination. Development of academic writing skills with focus on reading comprehension, vocabulary development, and analysis of discipline-specific research articles, with additional work on fundamental composition techniques, grammar, and editing. S/U or letter grading.

301. High-Intermediate Writing and Communication for International Graduate Students. (4) Lecture, five hours. Enforced requisite: course 300 or proficiency demonstrated on English as a Second Language Placement Examination. Development of academic writing skills with focus on reading comprehension, vocabulary development, and composition techniques with additional work on grammar and editing. S/U or letter grading.

302. Advanced Writing Workshop for International Graduate Students. (4) Lecture, five hours. Requisite: course 301 or proficiency demonstrated on English as a Second Language Placement Examination. Writing and revision of papers for academic work or publication in student fields of study. Emphasis on rhetorical strategies as well as stylistic and organizational conventions for presenting research-based arguments in disciplines including humanities, social sciences, and pure and applied sciences. Focus on grammar structures and vocabulary that contribute to clear and coherent writing style. S/U or letter grading.

Graduate Courses

107. Academic Reading and Vocabulary for Multilingual Students. (4) Lecture, four hours. Emphasis on improving reading rate and comprehension, expanding academic vocabulary, and developing critical reading skills. P/NP or letter grading.


189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.
310. Pronunciation for International Teaching Assistants. (4) Lecture, five hours. Satisfies Test of Oral Proficiency (TOP) requirement for international graduate students who received marginal pass on TOP. Focus on accurate articulation of sounds, word stress, linking, and other features of fluent spoken English, using authentic models of classroom language. Additional emphasis on comprehending typical under-graduate speech. Frequent audio-recordings and video-recordings provide opportunity for self-review and individualized instructor feedback. SU grading.

311. Classroom Communication for International Teaching Assistants II. (4) Lecture, five hours. Focus on stress, rhythm, and intonation of fluent spoken English using audio and video recordings of actual classroom teaching situations. Communication patterns include building rapport, giving instructions, handling questions, and interacting in office hours. Micro-teaching performances video-recorded for self, peer, and instructor evaluation. SU/grading.

312. Classroom Communication for International Teaching Assistants III. (4) Lecture, five hours. Satisfies Test of Oral Proficiency (TOP) requirement for international graduate students who received marginal pass on TOP. Course 311 is not required to 312. Focus on stress, rhythm, and intonation of fluent spoken English using audio and video recordings of actual classroom teaching situations. Communication patterns include building rapport, giving instructions, handling questions, encouraging participation, and organizing lessons. Microteaching performances video-recorded for self, peer, and instructor evaluation. SU/grading.

313. Presentation and Discussion-Leading Skills for International Teaching Assistants. (4) Lecture, five hours. Satisfies Test of Oral Proficiency (TOP) requirement for international graduate students who received marginal pass on TOP. Focus on communicating effectively as teaching assistants through interactive teaching demonstrations and student-led discussions of topical issues in the field. Emphasis on presenting subject matter in well-organized, interactive, and accessible way. Student performances videorecorded for external self, peer, and instructor evaluation. SU/grading.

English Composition

Lower-Division Courses

1. Introduction to University Discourse. (4) Lecture, four hours. Required: prerequisite demonstrated on Analytical Writing Placement Examination. Introduction to demands of university-level critical reading and academic writing. Engagement in substantial and regular writing and revision assignments through practicing and building on reading, writing, and rhetorical skills. Emphasis on revision, developing syntactic variety and academic vocabulary, and editing for grammar and style. Composition of course with grade of C or better is requisite to course 2. Letter grading.

1A. Intermediate Composition for Multilingual Students. (4) Lecture, five hours. Enforced requisite: proficiency demonstrated on Analytical Writing Placement Examination. Introduction to demands of university critical reading and academic writing. Emphasis on reading comprehension, vocabulary development, and fundamental composition techniques, with additional work on grammar and editing. Letter grading.

1B. High-Intermediate Composition for Multilingual Students. (4) Lecture, five hours. Required: proficiency demonstrated on Analytical Writing Placement Examination (Enforced) or English pass on Second Language Placement Examination (transfer students). Development of academic writing skills with focus on reading comprehension, vocabulary development, and fundamental composition techniques, with additional work on grammar and editing. Letter grading.

1C. Advanced Composition for Multilingual Transfer Students. (5) Lecture, four hours. Prerequisite: proficiency demonstrated on Entry-Level Writing requirement or course 1B (C or better). Development of academic writing skills with focus on writing process, grammatical structures key to clear and effective style, and practice with major forms of academic writing, with additional work on Oral Proficiency Test. Course with grade of C or better satisfies English as a Second Language requirement. Letter grading.

2. Approaches to University Writing. (5) Lecture, four hours. Prerequisite: proficiency demonstrated on Analytical Writing Placement Examination (enforced) or course A (C or better). Second course in university-level discourse, with analysis and critique of university-level texts, focusing on argumentative coherence and effective style. Completion of course with grade of C or better satisfies Entry-Level Writing requirement. Letter grading.

3. Approaches to University Writing for Multilingual Students. (6) Lecture, six hours. Prerequisite: proficiency demonstrated on Analytical Writing Placement Examination (enforced) or course B (C or better). Second course in university-level discourse, with analysis and critique of university-level texts, focusing on argumentative coherence and effective style. Completion of course with grade of C or better satisfies Entry-Level Writing requirement. Letter grading.

3A. English Composition, Rhetoric, and Language. (5) Lecture, four hours. Prerequisite: satisfactory performance on Entry-Level Writing requirement or course 2 (C or better). Open for credit to students with credit for course 3, 3DS, 3E, or 3SL Rhetorical techniques and skillful argument. Focus on diversity and inclusiveness. Analysis of varieties of academic texts and writing of minimum of 20 pages of revised text. Completion of course with grade of C or better satisfies Writing I requirement. Letter grading.

3B. English Composition, Rhetoric, and Language. (5) Lecture, four hours. Prerequisite: satisfactory performance on Entry-Level Writing requirement or course 2 (C or better). Open for credit to students with grade of C or better satisfies Writing I requirement. Letter grading.

3D. English Composition, Rhetoric, and Language (Service Learning). (5) Formerly numbered 3DS. Lecture, three hours; fieldwork, two hours. Enforced requisite: satisfactory performance on Entry-Level Writing requirement or course 2 (C or better). Investigation of difference and diversity through writing and rhetoric. Critical examination of structures and institutions that promote asymmetrical power relations as well as responses of diverse groups to these inequalities. Original argumentation that engages with difference and responds to complexities of diverse societies. Service learning adds to understanding of diversity by offering firsthand interactions with diverse communities students are learning about. Completion of 20 hours of on-site service learning and development of critical thinking skills about diversity through classroom discussions, focused readings and service-learning experiences, as well as through reflective and analytical writing and research. Collection of course with grade of C or better satisfies Writing I requirement. Letter grading.

3E. English Composition, Rhetoric, and Language for Engineers. (5) Lecture, three hours. Enforced requisite: satisfactory performance on Entry-Level Writing requirement or course 2 (C or better). Open for credit to students with credit for course 3, 3D, 3DS, or 3SL Rhetorical techniques and skillful expository writing. Analysis of varieties of academic prose, including technical writing and brief expository technical elements. Minimum of 20 pages of revised text. Completion of course with grade of C or better satisfies Writing I requirement. Letter grading.

3SL. English Composition, Rhetoric, and Language (Service Learning). (5) Lecture, three hours; fieldwork, two hours. Enforced requisite: satisfactory performance on Entry-Level Writing requirement or course 2 or 2I (C or better). Rhetorical techniques and skillful argument. Analysis of varieties of academic prose and writing of minimum of 20 pages of revised text. Service learning component includes meaningful work with off-campus agencies selected by instructor. Course with grade of C or better satisfies Writing I requirement. Letter grading.

4. Writing Workshop for Multilingual Students. (5) Tutorial, four hours. Prerequisite: demonstrated on Analytical Writing Placement Examination or informed self-placement administered through Writing Programs. Corequisite: course 1 or 2. Multilingual students gain language awareness and skills that complement courses satisfying Entry-Level Writing requirement. May be repeated once for credit. P/NP grading.

5W. Literature, Culture, and Critical Inquiry. (5) Lecture, four hours. Enforced requisite: course 3. Use of literature in works within cultural context to engage students in critical thinking and writing about issues important to academic inquiry and responsible citizenship. Minimum of 15 to 20 pages of revised text required in addition to regular informal writing exercises. Satisfies Writing II requirement. Letter grading.

6W. Language, Culture, and Discourse. (5) Lecture, four hours. Enforced requisite: courses 2, 3, Study of structures and use of English and its relationship to social structure and cultural values. Readings in linguistic analysis, language acquisition, sociolinguistics, and pragmatics provide foundation as students analyze authentic language as it is used in private and public contexts. Minimum of 15 to 20 pages of revised writing required. Satisfies Writing II requirement. Letter grading.

18. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. Offered in summer only. P/NP or letter grading.

51. Writing Workshop. (2) Lecture, five hours. Described for any students who have not yet enrolled in their first full term at UCLA. Introduction to demands of university writing and often untaught conventions that govern it. Writing techniques developed to address specific writing tasks such as timed examination, application essay, effective e-mail, and college paper. Offered in summer only. P/NP or letter grading.

51W. Writing Workshop. (2) Lecture, two hours. Limited to students admitted to the Freshman Writing Program who have not completed their first year of college coursework. Introduction to demands of university writing and often untaught conventions that govern it. Writing techniques developed to address specific writing tasks such as timed examinations, effective e-mails, and college papers, but also broad communication concerns such as classroom participation and oral presentations. P/NP grading.

52. Writing and Critical Thinking for Pre-College Scholars. (4) Lecture, 10 hours. Limited to students in VIP Scholars Program at UCLA. Introduction to demands of university writing, including research writing, with special focus on challenging students to think critically about world around them and their place in it within social justice framework. Offered in summer only, P/NP or letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division course lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward the 12 units of eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for
Upper-Division Courses

100W. Interdisciplinary Academic Writing. (5) Lecture, four hours. Requisite: course 3 or 3H or English as a Second Language 36. Designed for sophomore/juniors/seniors. Course in academic writing suitable for both lower- and upper-division students that helps them develop academic papers with range of complexity and length. Focus on conventions of academic prose and genres across disciplines. Written assignments include common forms of academic writing such as argument, research paper, and/or critical essay. Satisfies Writing II requirement. Letter grading.

100WD. Interdisciplinary Writing. (5) Lecture, four hours. Requisite: course 3, 3D, 3DS, or 3E. Course in academic writing suitable for both lower- and upper-division students that helps them develop academic papers with range of complexity and length. Focus on conventions of academic prose and genres across disciplines. Written assignments include common forms of academic writing such as argument, research paper, and/or critical essay. Satisfies Writing II requirement. Letter grading.

105D. Professional Writing: Business and Entrepreneurship. (5) Lecture, four hours. Requisites: satisfaction of Entry-Level Writing requirement, course 3. Emphasis on developing written, oral, and visual communication skills for entrepreneurial settings. Common tasks including pitching idea, seeking funding for startup, or promoting product or service. P/NP or letter grading.

110. Writing Adjunct. (4) Lecture, four hours. Requisites: satisfaction of Entry-Level Writing requirement, course 3 or 3H. Students must be concurrently enrolled in course offered in conjunction with course 110 (consult Schedule of Classes for courses so designated). Writing assignments use materials from adjunct course and reflect and develop analytic writing skills needed in that course. May be repeated for credit with consent of instructor. P/NP or letter grading.

120A. Language Study for Teachers: Elementary School. (4) Lecture, four hours. Requisite: satisfaction of Entry-Level Writing and English Composition requirements. Survey of topics in English linguistics of special interest to elementary school teachers. Topics include approaches to English grammar; language acquisition and development; language attitudes; regional and social dialects of American English; bilingual schooling; contribution of English language study to teaching of reading, writing, spelling, and literature. P/NP or letter grading.


123. Information Literacy and Research Skills. (1) Lecture, one hour. Preparation: satisfaction of Writing I requirement. Designed to help students become information literate so they know how to identify, locate, critically evaluate, and use print and electronic information effectively and ethically. Closely interwoven with Writing Programs courses that have information/research-related assignments. P/NP or letter grading.

129A-129D. Academic Writing in Disciplines. (4 each) Lecture. Designed for junior/seniors. Advanced study of writing conventions in specific disciplinary areas, with focus on analysis and development of writing expertise in common discursive forms, stylistic patterns, and research practices in give discipline. Each course may be taken independently for credit. P/NP or letter grading. 129A. Literature. 129B. Social Sciences. Lecture, three hours; discussion, one hour; 129C. Physical and Life Sciences. 129D. Fine Arts.

130A. Professional Writing: Digital Writing and Web Literacy. (5) Lecture, four hours. Requisites: satisfaction of Entry-Level Writing requirement, course 3. Emphasis on writing for digital environments such as websites, blogs, newsletters, and social media. Common professional settings for these skills include journalism, political campaigns, Internet marketing, and corporate communication. P/NP or letter grading.

130B. Professional Writing: Business and Entrepreneurship. (5) Lecture, four hours. Requisites: satisfaction of Entry-Level Writing requirement, course 3. Emphasis on developing written, oral, and visual communication skills for entrepreneurial settings. Common tasks including pitching idea, seeking funding for startup, or promoting product or service. P/NP or letter grading.


130D. Professional Writing: Nonprofits and Public Engagement. (5) Lecture, four hours. Requisites: satisfaction of Entry-Level Writing requirement, course 3. Development of ability to write persuasively and effectively in both nonprofit and public sectors. Writing genres include mission and vision statements, grant proposals, public service announcements, and outreach campaigns. P/NP or letter grading.

130E. Professional Writing: Arts and Entertainment. (5) Lecture, four hours. Requisites: satisfaction of Entry-Level Writing requirement, course 3. Emphasis on the economy of writing, including literary material and performances in areas such as film, television, theater, music, art/design, podcasts, and video games. Writing genres include critical reviews, recaps, promotional materials, treatments, and profiles. P/NP or letter grading.

131A-131C-131D. Specialized Writing. (4-4-4) Lecture, four hours. Requisite: satisfaction of Entry-Level Writing and English Composition requirements. Designed for juniors/seniors. Advanced writing course designed to help students develop stylistic, formal, and argumentative sophistication in various rhetorical contexts, including different sections that emphasize rhetorical values of major professions and research areas. Each course may be taken independently for credit. P/NP or letter grading. 131A. Law and Politics. 131C. Medicine and Public Health. 131D. Media and Communications.

131B. Specialized Writing: Business and Social Policy. (5) Lecture, four hours. Requisite: satisfaction of Entry-Level Writing and English Composition requirements. Designed for juniors/seniors. Advanced writing course designed to help students develop stylistic, formal, and argumentative sophistication in various rhetorical contexts, including different sections that emphasize rhetorical values of major professions and research areas. Each course may be taken independently for credit. P/NP or letter grading.

132. Variable Topics in Rhetoric and Writing. (5) Lecture, four hours. Requisites: satisfaction of Entry-Level Writing requirement, course 3. Intensive study of rhetoric and writing within one academic or professional context. Consult Schedule of Classes for topic focus in specific term. May be repeated for credit with topic change. P/NP or letter grading.

132A-132B-132C. Topics in Rhetoric and Writing. (4-4-4) Lecture, four hours; discussion, one hour. Requisite: satisfaction of Entry-Level Writing and English Composition requirements. Designed for juniors/seniors. Study of specific topics in relationship between rhetoric/writing and social or political history. Each course may be taken independently for credit. P/NP or letter grading. English majors who wish to use course to satisfy departmental requisites must take it for letter grade. 132A. Gender and Writing; 132B. Autobiographical Writing; 132C. Cultural Studies.

133. Topics in Writing for Multimedia Environments. (5) Lecture, four hours. Requisite: satisfaction of Entry-Level Writing requirement, course 3. Special topics in professional writing exploring current developments, issues, or debates within art, entertainment, and/or digital media industries. May be repeated for maximum of 10 units. P/NP or letter grading.

134. Topics in Science Writing. (5) Lecture, four hours. Requisites: satisfaction of Entry-Level Writing requirement, course 3. Special topics in professional writing exploring current developments, issues, or debates within specific field of science or technology. May be repeated for maximum of 10 units. P/NP or letter grading.

135. Professional Writing: Writing for Audio. (5) Formerly numbered 130F. Lecture, four hours. Requisites: satisfaction of Entry-Level Writing requirement, course 3. Emphasis on writing for listening audiences such as podcasts and radio, building brand awareness to reach them, and engineering clean audio. Common professional settings for these skills include audio journalism, political campaigns, Internet marketing, and corporate communication. P/NP or letter grading.

136. Practical Writing and Editing. (5) Lecture, four hours. Requisites: satisfaction of Entry-Level Writing requirement, course 3. Special topics in professional writing exploring current developments, issues, or debates within art, entertainment, and/or digital media industries. May be repeated for maximum of 10 units. P/NP or letter grading.

137. Writing for Public Speaking. (5) Lecture, four hours. Requisites: satisfaction of Entry-Level Writing requirement, course 3. Emphasis on careful preparation, rehearsal, and delivery of professional presentations including design of effective visual aids and delivery. P/NP or letter grading.

M138. Topics in Creative Writing. (5) Same as English M138. Seminar, three hours. Requisite: course 3 or 3D or 3DS or 3SL. Introductory workshop in genre(s) of instructor choice, that may include mixed genres, playwriting, screenwriting, literary nonfiction, or poetry. May be repeated for maximum of 15 units. P/NP or letter grading.

M141. Current Methods of Language Teaching. (5) (Same as Linguistics M141.) Lecture, four hours; discussion, one hour. Enforced requisite: Linguistics 20. Survey of the theory and practice of current and/or various periods, and for a variety of contexts. Aims to make a major 100-level course in one or more periods, as approved by instructor. P/NP or letter grading.

142. Teaching Grammar and Style. (4) Lecture, four hours. Requisite: Linguistics 20. Survey of English language structures and conventions to better understand relationships among forms/structure, meaning, and stylistic effects. Emphasizes understanding of teachers’ ability to explain structures and to articulate nuances of meaning. Exploration of grammar and style in terms of design and lesson building. P/NP or letter grading.

175. Apprenticeship in Composition Tutoring. (2) Seminar, two hours. Enforced requisite: satisfaction of Writing II requirement. Composition Peer Learning Facilitators (PLFs) who work in Undergraduate Writing Center provided with ongoing mentoring in composition and peer learning methodologies. Overview of language, writing, and literacy needs of diverse college-age writers, including developing writers, multilingual writers, and nonnative English-speaking (NNES) writers. Provides opportunity to reflect critically on
Graduate Courses


375. Teaching Apprentice Practicum. (1-4) Seminar, to be arranged. Preparation: apprentice personnel in teaching assistant, second-year associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit with consent of instructor. P/NP grading.

180. Research Practice. (Formerly numbered M180.) Lecture, four hours. Advanced workshop designed for juniors and seniors engaged in large-scale research projects. Students present their research projects in class, develop collegiality and critical analysis. Open to all students. May be repeated for credit with consent of instructor. P/NP grading.

M185. Professional Writing Capstone. (4) Same as English M185.) Seminar, four hours. Limited to junior/senior professional writing majors. Topical writing workshop on rhetorical strategies useful in written and multimodal genres. Intended to provide students with opportunity for serious engagement with writing project in their minor specialization under close faculty supervision. Explores the relationship between critical analysis and the classroom. Reading, discussion, oral presentations, rhetorical analysis, and development of professional portfolio. Students develop their capstone projects, including identifying appropriate models, generic expectations, and rhetorical choices. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture courses. Exploration of topics of greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lead course instructor to explore topics of greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

M192. Undergraduate Practicum in English: Journals. (2) Same as English M192.) Seminar, two hours. Training and supervised practicum for undergraduate students engaged in Keeping Journals supervised by faculty members in English and/or Writing Programs. May be repeated for credit. P/NP or letter grading.

195. Community or Corporate Internships in English Composition. (2 to 4) Tutorial, to be arranged. Required: course 3 or 3H. Limited to juniors/senior. Internship in supervised setting in community agency or business. Students meet on regular basis with instructor and provide periodic reports of their experience. May be repeated for credit. Individual contract with supervising faculty member required. P/NP or letter grading.

199. Directed Research or Senior Project in English Composition. (2 to 4) Tutorial, to be arranged. Required: course 3 or 3H. Limited to seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses


375. Teaching Apprentice Practicum. (1-4) Seminar, to be arranged. Preparation: apprentice personnel in teaching assistant, second-year associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit with consent of instructor. P/NP grading.

401. Current Issues in University Writing Pedagogy. (4) Seminar, three hours. Limited to graduate students. Exploration of literature and theories of postsecondary writing pedagogy that may include focus on changing institutional role of writing instruction, multimodal composition, linguistic/educational diversity. S/U or letter grading.

402. Writing Pedagogy across Disciplines: Genre and Discourse. (4) Seminar, three hours. Limited to graduate students. Survey of literature on academic writing across curricula. Examination of writing conventions, genres, and styles in graduate student academic disciplines, with focus on evolving academic discourse in emerging and hybrid areas of inquiry. Development of knowledge of advanced composition pedagogy to changes in disciplinary academic discourse, with discussion of challenges for multilingual learners. S/U or letter grading.


404. Diversity and Student-Centered Pedagogy. (4) Seminar, three hours. Limited to graduate students. Survey of theories of writing in the context of social and cultural diversity, with focus on diversity of race, socioeconomic status, geographic background, linguistic skills, and academic preparedness. Development of best practices for accommodating diverse student populations and building active inclusive curriculum and classroom environments at university level. S/U or letter grading.

405A. Teaching Preparation Seminar: Second Language Learners. (4) Seminar, three hours. Limited to graduate students. Required of all English as a second language (ESL) teaching assistants and open to students seeking Graduate Certificate in Writing Pedagogy. Focus on pedagogical issues specifically related to academic reading and composition skills for second language learners, including course design, assessment of student writing, conferencing, and specialized problems that may occur in teaching ESL courses. S/U grading.

405B. Supervised Teaching of Language Learners. (2) Seminar, two hours. Enforced requisite: course 405A. Required of all English as second language (ESL) teaching assistants each year. They are assigned to help English language (ESL) teaching assistants in composition pedagogy, writing course design, assessment of student writing, and specialized problems that may occur in teaching ESL courses. S/U grading.

405C. Teaching Preparation Seminar: First-Year Composition. (4) Seminar, three hours. Limited to graduate students. Required of all teaching assistants prior to teaching English Composition 3 courses and open to teaching assistants for Writing I. Focus on composition pedagogy, writing course design, assessment of student writing, and specialized problems that may occur in teaching English Composition 3 courses. May be repeated for credit. S/U grading.

405D. Supervised Teaching of First-Year Composition. (2) Seminar, two hours. Enforced requisite: course 405C. Required of all teaching assistants who are assigned to English Composition 3 courses. Focus on composition pedagogy, course design, assessment of student writing, and specialized problems that may occur in teaching English Composition 3. May be repeated for credit. S/U grading.

405E. Teaching Preparation Seminar: Writing in Disciplines. (2) Seminar, three hours every other week. Limited to graduate students. Required of all teaching assistants for Writing II courses not exempt by appropriate departmental or program training. Mentoring conferences and teaching observations, with focus on student-centered pedagogy, assessment of student writing, guidance of revision process, and specialized writing problems that may occur in disciplinary contexts. Practical concerns of creating assignments, marking and grading essays, and conducting peer reviews and conferences. May be repeated for credit. S/U grading.

405F. Supervised Teaching of Writing in Disciplines. (2) Seminar, two hours. Enforced requisite: course 405E. Required of all teaching assistants for Writing II courses not exempt by appropriate departmental or program training. Mentoring conferences and teaching observations, with focus on student-centered pedagogy, assessment of student writing, guidance of revision process, and specialized writing problems that may occur in disciplinary contexts. Practical concerns of creating assignments, marking and grading essays, and conducting peer reviews and conferences. May be repeated for credit. S/U grading.

M495I. Teaching Preparation Seminar: Writing for Engineers. (4) Same as Engineering M495I.) Seminar, two and one half hours. Limited to graduate students. Required of all teaching assistants for writing courses not exempt by appropriate departmental or program training. Exploration of topics in engineering writing, with a focus on student-centered pedagogy, assessment of student writing, guidance of revision process, and specialized writing problems that may occur in engineering writing contexts. Practical concerns of preparing students to write course assignments, marking and grading essays, and conducting peer reviews and conferences. S/U grading.

M495J. Supervised Teaching of Writing for Engineers. (4) Same as Engineering M495J.) Seminar, one hour. Enforced requisite: course 405I. Required of all teaching assistants in teaching English Composition 2 or 3 courses. Training for engineering writing courses. Mentoring in group and individual meetings. Continued focus on composition pedagogy, assessment of student writing, guidance of revision process, and specialized writing problems that may occur in engineering writing contexts. Practical concerns of preparing students to write course assignments, marking and grading essays, and conducting peer reviews and conferences. S/U grading.

M495K. Teaching Preparation Seminar: Teaching and Writing Pedagogies for Electrical Engineers. (2) Same as Electrical and Computer Engineering M495K.) Seminar, two hours. Enforced requisite: course 405I. Required of all teaching assistants in teaching English Composition 2 or 3 courses. Training for electrical engineering writing courses. Mentoring in group and individual meetings. Continued focus on composition pedagogy, assessment of student writing, guidance of revision process, and specialized writing problems that may occur in engineering writing contexts. Practical concerns of preparing students to write course assignments, marking and grading essays, and conducting peer reviews and conferences. S/U grading.

M495L. Teaching Preparation Seminar: Teaching and Writing Pedagogies for Electrical Engineers. (2) Same as Electrical and Computer Engineering M495L.) Seminar, two hours. Enforced requisite: course 405J. Required of all teaching assistants in teaching English Composition 2 or 3 courses. Training for electrical engineering writing courses. Mentoring in group and individual meetings. Continued focus on composition pedagogy, assessment of student writing, guidance of revision process, and specialized writing problems that may occur in engineering writing contexts. Practical concerns of preparing students to write course assignments, marking and grading essays, and conducting peer reviews and conferences. S/U grading.

M495M. Teaching Preparation Seminar: Teaching and Writing Pedagogies for Electrical Engineers. (2) Same as Electrical and Computer Engineering M495M.) Seminar, two hours. Enforced requisite: course 405J. Required of all teaching assistants in teaching English Composition 2 or 3 courses. Training for electrical engineering writing courses. Mentoring in group and individual meetings. Continued focus on composition pedagogy, assessment of student writing, guidance of revision process, and specialized writing problems that may occur in engineering writing contexts. Practical concerns of preparing students to write course assignments, marking and grading essays, and conducting peer reviews and conferences. S/U grading.
texts. Practical concerns of creating assignments, responding to and grading essays, and conducting peer reviews and conferences. May be repeated for credit. S/U grading.

495P. Teaching Preparation Seminar: Empowering Culturally Diverse Student Writers. (2) Seminar, two hours. Limited to graduate students. Recommended for all teaching assistants planning to teach English composition as part of AAP’s summer bridge programs. Focus on pedagogy that serves heterogeneous classrooms, with emphasis on diversity of race, socioeconomic status, citizenship status, and academic preparedness. Practical concerns include lesson planning and professionalization for composition instructors. S/U grading.

495S. Supervised Summer Teaching of Language and Composition. (2) Seminar, 90 minutes. Requisite: course 495A or 495C. Recommended for all teaching assistants teaching English as a second language, English composition, and Writing II courses during summer. Focus determined on individual basis according to class appointed and may include oral skills pedagogy, composition pedagogy, course design, assessment of student performance, and specialized problems that may occur in intensive summer language and/or composition courses. Supervision during appointment and mentor meetings and reflection on teaching experience following summer appointment. S/U grading.

496. Special Projects in Language and Writing Pedagogy. (1 to 4) Tutorial, three hours. Limited to Writing Pedagogy graduate certificate students. Reflective teaching experience, practicum experience, specialized curriculum development project, or independent research project under guidance of faculty mentor. Individual contract required. S/U grading.

499. Academic Professionalization Colloquium. (2) Colloquium/workshop, three hours every other week. Limited to graduate students. Rotating speakers on topics such as designing digital teaching portfolio, drafting academic/teaching curriculum vitae (CV), writing application letters for academic jobs, and pursuing alternative academic careers. Speaker sessions and panels to be followed by workshops. Revision of application letter, CV, teaching portfolio, or other relevant document to be determined in consultation with colloquium organizer. S/U grading.
Appendixes

Appendix A: University Administrative Officers

University of California (UC) administrative officers include the systemwide Board of Regents, Office of the university president, and chancellors of the ten state campuses. UCLA officers include administrative and academic executives, and deans of the College and schools.

UC Board of Regents

Terms of Regents appointed by the Governor expire March 1 of the year in parentheses. The student Regent and alumni Regents serve a one-year term beginning July 1 and ending June 30 of the year shown.

Regents Ex Officio

- Michael V. Drake, President of the University
- Keith Ellis (2024), Vice President, Alumni Associations of UC
- Eleni T. Kounalakis, Lieutenant Governor of California
- Gavin C. Newsom, Governor of California
- Joel Raznick (2024), President, Alumni Associations of UC
- Tony K. Thurmond, State Superintendent of Public Instruction

Appointed Regents

- Maria Anguiano (2028)
- Elaine E. Batchlor (2033)
- Carmen Chu (2030)
- Michael Cohen (2030)
- Gareth Elliott (2025)
- Howard Peter Guber (2029)
- Jose M. Hernandez (2033)
- Richard Leib (2026)
- Hadi Makarechian (2032)
- Ana Matosantos (2034)
- Lark Park (2029)
- John A. Pérez (2024)
- Janet Reilly (2028)
- Mark Robinson (2034)
- Richard Sherman (2026)
- Jonathan Jay Sures (2032)
- Merhawi Tesfai (2024), Student Regent

Faculty Representatives

- Steven Cheung (2024), Senate Vice Chair
- James Steintrager (2024), Senate Chair

Staff Adviser

- Jo Mackness (2024), Berkeley

Officers of the Regents

- Alexander Bustamante, Executive Vice President; Chief Compliance and Audit Officer
- Gareth Elliott, Vice Chair
- Richard Leib, Chair
- Tricia Lyall, Secretary and Chief of Staff
- Gavin C. Newsom, President
- Charles F. Robinson, Senior Vice President; General Counsel
- Jagdeep Singh Bachher, Vice President, Investments; Chief Investment Officer

UC Office of the President

- Michael V. Drake, University President
- Nathan Brostrom, Executive Vice President; Chief Financial Officer
- Alexander Bustamante, Executive Vice President; Chief Compliance and Audit Officer
- Carrie Byington, Executive Vice President; UC Health
- Rachael Nava, Executive Vice President; Chief Operating Officer
- Katherine S. Newman, Executive Vice President, Academic Affairs; Provost
- Michael Reese, Senior Vice President, External Relations and Communication (Interim)
- Charles F. Robinson, Senior Vice President; General Counsel
- Jagdeep Singh Bachher, Vice President, Investments; Chief Investment Officer
- Pamela Brown, Vice President, Institutional Research and Academic Planning
- Yvette Gullatt, Vice President, Graduate, Undergraduate, and Equity Affairs; Vice Provost; Chief Diversity Officer
- Glenda Humiston, Vice President, Agriculture and Natural Resources
- Craig Leasure, Vice President, National Laboratories
- Cheryl Lloyd, Vice President, Human Resources
- Theresa A. Maldonado, Vice President, Research and Innovation
- Van Williams, Vice President, Information Technology Services; Chief Information Officer
- Kathleen Fullerton, Associate Vice President, State Government Relations
- Christopher Harrington, Associate Vice President, Federal Government Relations

UC Campus Chancellors

- Gene D. Block, Los Angeles
- Carol T. Christ, Berkeley
- Howard Gilliman, Irvine
- Sam Hawgood, San Francisco
- Pradeep K. Khosla, San Diego
- Cynthia K. Larive, Santa Cruz
- Gary S. May, Davis
- Juan Sánchez Muñoz, Merced
- Kim A. Wilcox, Riverside
- Henry T. Yang, Santa Barbara

UCLA Administrative Officers

- Gene D. Block, Chancellor
- Darnell M. Hunt, Executive Vice Chancellor and Provost
- Michael J. Beck, Administrative Vice Chancellor
- Allison Baird-James, Vice Chancellor; Chief Financial Officer (Interim)
- Ina Bryant, Vice Chancellor, Legal Affairs (Interim)
- Mitchell J. Chang, Vice Chancellor, Equity, Diversity, and Inclusion (Interim)
- Monroe Gorden, Jr., Vice Chancellor, Student Affairs
As of publication, UCLA has 531 endowed chairs that have been activities of distinguished faculty members. Although UCLA is a public institution, private gifts are increasingly important in maintaining the quality of the three missions of education, research, and community service. Among the principal forms of private support are endowed professorships, or chairs, which support the educational and research activities of distinguished faculty members. As of publication, UCLA has 531 endowed chairs that have been approved by the UC Office of the President.

School of Dentistry

Alumni and Friends Oral and Maxillofacial Surgery Endowed Chair
Alumni and Friends Presidential Endowed Chair
Thomas R. Bales Chair in Orthodontics
Thomas K. Barber Endowed Chair in Pediatric Dentistry
Naomi and Jim Ellison Endowed Chair
Lee Family Endowed Chair
Momentum Endowed Chair in Special Patient Care
Nobel Biocare Endowed Chair in Surgical Implant Dentistry
Dr. No-Hee Park Chair in Dentistry
Tarrson Family Endowed Chair in Periodontics
Jack A. Weichman Chair in Endodontics
Bob and Marion Wilson Endowed Chair
Felix and Mildred Yip Endowed Professorship in Dentistry

School of Education and Information Studies

Martin and Bernard Breslauer Professorship in Bibliography
Allan Murray Carter Chair in Higher Education
Dr. Rosalyn Shostak Heyman and Dr. Max L. Heyman, Jr., Endowed Chair
George F. Kneller Chair in Education and Anthropology
George F. Kneller Chair in Education and Philosophy
Presidential Chair in Education and Diversity
Pritzker Family Endowed Chair in Education to Strengthen Families
Wasserman Endowed Deanship of Education and Information Studies

Henry Samueli School of Engineering and Applied Science

L.M.K. Boelter Chair in Engineering
Collins Aerospace Term Chair for Excellence
Collins Aerospace Term Chair for Innovation
Vijay K. Dhir Chair in Engineering
Trafton and Dorothea Frederking Endowed Chair
Norman E. Friedmann Chair in Knowledge Sciences
Armond and Elena Hairapetian Chair in Engineering and Medicine
Tatsuo Itoh Endowed Chair in Electrical and Computer Engineering
Leonard Kleinrock Term Chair in Computer Science
Evelyn Knight Chair in Engineering
Levi James Knight, Jr., Chair for Innovation
Levi James Knight, Jr., Term Chair for Excellence
Fang Lu Endowed Chair in Engineering
J.M. Maguire Term Chair in Engineering
Richard G. Newman AECOM Endowed Chair in Civil Engineering
Nippon Sheet Glass Company Chair in Materials Science
Northrop Grumman Chair in Electrical Engineering
Northrop Grumman Chair in Electrical Engineering/Electromagnetics
Northrop Grumman Opto-Electronic Chair in Electrical Engineering
Mukund Padmanabhan Term Chair
Mukund Padmanabhan Term Chair Electrical Engineering
Vijay K. Dhir Chair in Engineering
Ralph M. Parsons Foundation Chair in Chemical Engineering
Jonathan B. Postel Chair in Computer Systems
Jonathan B. Postel Chair in Networking
Presidential Endowed Chair in Structural Engineering
Pritzker Chair in Sustainability
Raytheon Company Chair in Electrical Engineering
Raytheon Company Chair in Mechanical Engineering
Charles P. Reames Endowed Chair in Electrical Engineering
Ben Rich Lockheed Martin Chair in Aeronautics
Sabol-Scott Term Chair in Civil and Environmental Engineering

Appendix B: Endowed Chairs

Although UCLA is a public institution, private gifts are increasingly important in maintaining the quality of the three missions of education, research, and community service. Among the principal forms of private support are endowed professorships, or chairs, which support the educational and research activities of distinguished faculty members. As of publication, UCLA has 531 endowed chairs that have been approved by the UC Office of the President.
<table>
<thead>
<tr>
<th>Chair Title</th>
<th>Department</th>
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<tr>
<td>Marilyn Beaudry-Corbett Endowed Chair in Mesoamerican Archaeology</td>
<td>College of Letters and Science</td>
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<tr>
<td>George and Nouhad Ayoub Chair in Life Sciences Innovation</td>
<td>College of Letters and Science</td>
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<td>Thomas M. Asher Endowed Chair in Microbiology</td>
<td>College of Letters and Science</td>
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<tr>
<td>Joyce Oldham Appleby Endowed Chair of America in the World</td>
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<td>William D. Van Vorst Chair in Chemical Engineering Education</td>
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<td>Volgenau Chair for Engineering Excellence</td>
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<td>Wintek Endowed Chair in Electrical Engineering</td>
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<td>Neria and Manizheh Yomtoubian Endowed Chair in Cancer and Risk Sciences</td>
<td>College of Letters and Science</td>
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<td>Wende E. Cotson Chair in Archaeology</td>
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<td>Civil Liberties</td>
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<td>Carole Goldberg Endowed Chair in Native American Law</td>
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<td>Paul Hastings Endowed Chair in Business Law</td>
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<td>Pete Kameron Endowed Chair in Law</td>
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<td>Richard C. Maxwell Chair in Law</td>
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<td>Arjay and Frances Fearing Miller Chair in Law</td>
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<td>Rachel F. Moran Endowed Chair in Law</td>
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<td>Susan Westerberg Prager Endowed Chair in Law</td>
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<td>Honorable Harry Pregerson Endowed Chair in Law</td>
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<td>David G. and Dallas P. Price Chair in Law</td>
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<td>Promise Institute Chair in Comparative and International Law</td>
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<td>Promise Institute Chair in Human Rights</td>
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<td>Security Pacific Bank Chair</td>
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<td>Shirley and Shirley Shapiro Chair in Law</td>
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<td>William D. Warren Chair in Law</td>
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<td>Frank G. Wells Endowed Chair in Environmental Law</td>
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<td>Stephen Yeazell Endowed Chair in Law</td>
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<td>Eric M. Zolt Chair in Tax Law and Policy</td>
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<td>John P. and Claudia H. Schauerman Endowed Chair in Engineering</td>
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<td>William Frederickseyer Chair in Materials Electrochemistry</td>
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<td>Ronald and Valerie Sugar Dean of Henry Samueli School of Engineering and</td>
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<td>Symancet Term Chair in Computer Science</td>
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<td>Carol and Lawrence E. Tannas, Jr., Endowed Chair in Engineering</td>
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<td>Norman Abrams Endowed Chair in Law</td>
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<td>Omar and Azmeraldal Affi Chair in Islamic Law</td>
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<td>Harry Graham Balter Chair in Law</td>
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<td>Barrall Family Endowed Chair in Tax Law and Policy</td>
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<td>A. Richard Diebold, Jr., Endowed Chair</td>
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<td>Distinguished Chair in Environment and Sustainability</td>
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<td>Nabin and Pratima Doshi Chair in Indian Studies</td>
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<td>Dubchansky Endowed Chair in Economics</td>
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<td>Greg Sarris Endowed Chair in Native American Law</td>
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<td>Eric M. Zolt Chair in Tax Law and Policy</td>
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<td>John P. and Claudia H. Schauerman Endowed Chair in Engineering</td>
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<td>William Frederickseyer Chair in Materials Electrochemistry</td>
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<td>Ronald and Valerie Sugar Dean of Henry Samueli School of Engineering and</td>
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<td>Symancet Term Chair in Computer Science</td>
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<td>Carol and Lawrence E. Tannas, Jr., Endowed Chair in Engineering</td>
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<td>William D. Van Vorst Chair in Chemical Engineering Education</td>
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<td>Volgenau Chair for Engineering Excellence</td>
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<tr>
<td>Wintek Endowed Chair in Electrical Engineering</td>
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<tr>
<td>Neria and Manizheh Yomtoubian Endowed Chair in Cancer and Risk Sciences</td>
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<td>Wende E. Cotson Chair in Archaeology</td>
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<td>Civil Liberties</td>
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<td>Carole Goldberg Endowed Chair in Native American Law</td>
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<tr>
<td>Paul Hastings Endowed Chair in Business Law</td>
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<td>Robert Henigson Endowed Chair in Legal Ethics</td>
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<tr>
<td>Pete Kameron Endowed Chair in Law</td>
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<tr>
<td>Pete Kameron Chair in Law and Social Justice</td>
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<td>Eric M. Zolt Chair in Tax Law and Policy</td>
<td>School of Law</td>
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</table>
John E. Anderson Graduate School of Management

Allstate Chair in Insurance and Finance
Andersen Worldwide Chair in Management
John E. Anderson Chair in Management
Marion Anderson Chair in Management
Arden Realty Chair
Donnalis ’86 and Bill Barnum Endowed Term Chair in Management
Robert D. Beyer ’83 Chair in Management
California Chair in Real Estate and Land Economics
Edward W. Carter Chair in Business Administration
William M. Cockrum Chair in Entrepreneurship
William M. Cockrum Professorship in Entrepreneurial Finance
James A. Collins Chair in Management
Warren C. Cordner Chair in Money and Financial Markets
Ernst and Young Chair in Accounting
Laurence D. and Lori W. Fink Endowed Chair in Finance
Ford II Chair in International Management
Joel Fried Chair in Applied Finance
Lee and Seymour Graff Endowed Professorship
Goldyne and Irwin Hersh Chair in Money and Banking
Hans Hufschmid Chair in Management
IBM Chair in Management
Joseph Jacobs Chair in Entrepreneurial Studies
Neil Jacoby Chair in Management
Japan Alumni Chair in International Finance
Bud Knapp Marketing Professorship
Harry and Elsa Kunin Chair in Business and Society
J. Clayburn La Force Chair in Management
William E. Leonhard Chair in Management
Los Angeles Times Professor of Management and Policy
Justice Elwood Lui Endowed Term Chair in Management
Chauncey J. Medberry Chair in Management
Peter W. Mullin Chair in Management
Howard Noble Chair in Management
Paine Chair in Management
George Robbins Chair in Management
Sanford and Betty Sigoloff Chair in Corporate Renewal
Term Chair in Teaching Excellence
Term Chair in Management
UCLA Anderson Board of Visitors Term Chair in Management
UCLA Anderson Dean’s Term Chair in Management
UCLA Anderson Faculty Term Chair in Management
J. Fred Weston Chair in Finance
Harold Williams Chair in Management
Susan Wojcicki Chair in Data Science and Innovation
Ho-Su Wu Chair in Management
Bing ’86 and Alice Liu Yang Endowed Term Chair in Management
Bing ’86 and Alice Liu Yang Endowed Term Chair in Management and Innovation
Bing ’86 and Alice Liu Yang Endowed Term Chair in Teaching Excellence

David Geffen School of Medicine

William S. Adams, MD, Chair in Medicine
Ahmanson Chair in Ophthalmology
Mary D. Allen Chair in Vision Research
Lori Altshuler Endowed Chair in Mood Disorders
Harlan C. Amstutz, MD, Endowed Chair in Anthropology
Wallis Annenberg Endowed Chair in Integrative East-West Medicine
Leonard Apt Endowed Chair in Pediatric Ophthalmology
Archstone Foundation Endowed Chair in Geriatrics
Stephen J. Ryan—Arnold and Mabel Beckman Foundation Chair
Casey Lee Ball Endowed Chair in Pediatric Nephrology
Wiley F. Barker Chair in Vascular Surgery
Kamal A. Batniji, MD, Endowed Chair for Humanitarian Care and Innovation in Laryngology and Head and Neck Surgery
Dena Bat-Yacov Endowed Chair in Psychiatry
Ulrich Batzdorf, MD, Chair in Spinal Neurosurgery
Louis D. Beaumont Chair in Surgery
Donald P. Becker, MD, Term Chair in Neurosurgery
Donald and Vivienne Bellissario Chair
Jerome L. Belzer Chair in Medical Research
Lillian and Alvin L. Bergman Chair in Vascular Research
Bing Professorship in Urologic Research
Anna and Harry Borun Chair in Geriatrics/Gerontology
Bowyer Professorship in Medical Oncology
Saul Brandman Endowed Chair in Pulmonary Arterial Hypertension
Judson Braun Chair in Biological Psychiatry
Geri and Richard Brawerman Chair in Pediatric Neurosurgery
Gary L. Brinderson Family Chair in Neuro-Intensive Care
Eli and Edythe L. Broad Foundation Chair in Inflammatory Bowel Disease Research
Rubin Brown Chair in Pediatric Neurology
Burnett Family Chair
Ronald W. Busuttil, MD, PhD and Sidney Kimmel Endowed Chair in Transplantation Surgery
Thomas C. Calcaterra, MD, Chair in Head and Neck Surgery
Joseph Campbell Chair of Child Psychiatry
Iris Cantor Chair in Breast Imaging
Iris Cantor Endowed Chair in Women’s Health
Edward W. Carter Chair in Internal Medicine
Castor Chair in Cardiology
Vincent and Stella Coates Chair in Molecular Neurobiology
Tony Coelho Chair in Neurology
Ronald and Susan Cohen Term Chair in Childhood Development and Cerebral Palsy
Carol and James Collins Chair in Geriatric Medicine
William E. Connor Chair in Cardiothoracic Transplantation
Elliot Corday Chair in Cardiovascular Medicine and Science
Norman Cousins Chair in Psychoneuroimmunology
Crump Chair in Medical Engineering
Karen and Frank Dabby Endowed Chair in Ophthalmology
Dr. Alfonsoa Q. Davies Endowed Chair in Honor of Paul Crandall, MD, for Epilepsy Research
M. Philip Davis Chair in Microbiology and Immunology
Robert and Kelly Day Chair in Cardiothoracic Surgery
Robert and Kelly Day Chair in General Surgery
Robert and Kelly Day Chair in Surgical Outcomes
Jean B. deKernion, MD, Endowed Chair in Urology
Wini and William J. Dignam, MD, Endowed Chair in Obstetrics and Gynecology
Joshua S. and Beth C. Friedman Chair for Women’s Genetic Research
Diller—von Furstenberg Family Endowed Chair in Human Genetics
Diller—von Furstenberg Family Endowed Chair in Precision Clinical Genomics
John Bartley Dillon, MD, Endowed Chair in Anesthesiology
Roy and Carol Doumani Chair
Roy and Carol Doumani Chair in Urologic Oncology
Robert and Patricia Draine Endowed Chair in Geriatric Medicine
Dumont—UCLA Chair in Transplantation Surgery
Jeffrey J. Eckardt, MD, Term Chair in Orthopaedic Surgery
Max Factor Family Foundation Chair in Nephrology
Charles Kenneth Feldman Chair in Ophthalmology
Marjorie Fine, MD, Endowed Chair in Clinical General Surgery
Elsie and Isaac Fogelman Endowed Chair in Pediatric Neurology
Eric W. Fonkalsrud, MD Endowed Chair in Pediatric Surgery
Dr. Daniel X. Freedman Administrative Chair in Academic Psychiatry
John Douglas French Alzheimer’s Foundation Endowed Chair
Friends of Semel Endowed Term Chair
Joaquin M. Fuster Chair in Cognitive Neuroscience
David Geffen Chair in Informatics
David Geffen Chair in Medical Research
David Geffen School of Medicine Chair in Neuroscience
Laraine and David Gerber Chair in Ophthalmology
Maggie C. Gilbert Endowed Chair in Bipolar Disorders
Rosalinde and Arthur Gilbert Foundation Endowed Chair in Health Care Delivery
Dr. Allen and Charlotte Ginsburg Endowed Chair in Precision Genomic Medicine
Dr. Allen and Charlotte Ginsburg Endowed Chair in Translational Genomics
Nancy and Jonathan Glaser Endowed Chair for Pediatric Sarcomas
Joan S. and Ralph N. Goldwyn Endowed Chair in Immunobiology and Transplantation Research
Victor Goodhill, MD, Chair in Head and Neck Surgery
Laurie and Steven C. Gordon Chair in Neurosciences
Laurie and Steven C. Gordon Chair in Neurosurgery
Steven C. Gordon Family Chair in Parkinson’s Disease Research
Dolly Green Chair in Clinical Research
Dolly Green Chair in Ophthalmology
Dolly Green Chair in Vision Science
Thomas N. Grove Chair in Anesthesiology
Maud Cady Guthman Chair in Cardiology
Muriel Harris Chair in Geriatric Psychiatry
Shirley M. Hatos Chair
Stefan Hatos Endowed Chair in Psychiatry and Biobehavioral Sciences
Gavin S. Herbert Endowed Chair for Macular Degeneration
Ernest G. Herman Chair in Ophthalmology
Christian Herrmann, Jr., MD Endowed Chair in Neuromuscular Disease
Holt and Jo Hickman Endowed Chair in Advanced Lung Disease and Lung Transplantation
Ronald S. Hirshberg Chair in Translational Pancreatic Cancer Research
Stanley Iezman and Nancy Stark Endowed Chair in Thoracic Radiation Oncology Research
A. Ray Irving, Jr., MD, Chair in Clinical Ophthalmology
John Jergens Chair in Kidney Transplantation
Kaiser Permanente Chair in Community Medicine
Margaret Holden Jones Kanaar, MD, Chair in Cerebral Palsy
Solomon A. and Marie M. Kaplan Chair in Pediatric Endocrinology
Maddie Katz Endowed Chair in Palliative Care Research and Education
Ronald L. Katz, MD, Endowed Chair in Anesthesiology
Chizuko and Nobuyuki Kawata Chair in Cardiology
Dorothy and Robert Keyser Endowed Chair
Karl Kirchgenssner Foundation Chair in Vision Science
Arnold W. Klein, MD, Chair in Dermatology
George F. Kneller Chair in Family Medicine
Kolokotrones Chair in Ophthalmology
John J. Kuiper Chair in Nephrology and Renal Transplantation
Grace and Walter Lantz Endowed Chair in Ophthalmology
Lya and Harrison Latta Chair in Pathology
Lauren B. Leichtman and Arthur E. Levine Endowed Chair in Women’s Health Research
Eleanor Leslie Chair in Innovative Brain Research
Eleanor Leslie Chair in Pioneering Brain Research
Eleanor I. Leslie Chair of Neuroscience
Barbara Gerald Levey Endowed Chair
Gerald S. Levey, MD, Endowed Chair
Shirley LeVine Chair in Pediatric Education
Bert O. Levy Endowed Chair in Orbital and Ophthalmic Plastic Surgery
Hilal Lewis Family Chair in Ophthalmology
Walton Li Chair in Cornea and Uveitis
Lincy Foundation Chair in Clinical Gastroenterology
Mark S. Litwin, MD, Endowed Chair in Mentorship
William P. Longmire, Jr., Chair in Surgery
Olve and Angela Lundgren Endowed Chair
Meyer and Renee Luskin Chair in Migraine and Headache Studies
Gordon and Virginia MacDonald Distinguished Chair in Human Genetics
Charles H. Markham Chair in Neurology
Nancy Marks Endowed Chair in Women’s Health Research
Della Martin Chair in Psychiatry
Mattel Executive Endowed Chair in Pediatrics
Appendixes / 888

Herb Alpert School of Music

Kenny Burrell Chair in Jazz Studies
Susan G. Covel and Mitchel D. Covel, MD, Chair in Music
Mickey Katz Endowed Chair in Jewish Music
Leo M. and Elaine Krown Klein Chair in Performance Studies
Mohindar Brar Sambhi Endowed Chair in Indian Music
Shapiro Family Chair in Piano Performance

Simms/Mann Family Foundation Chair in Integrative Oncology
Jennifer Jones Simon Chair in Radiation Oncology
Norton Simon Chair in Biophysics
Jonathan Sinay Chair in Epilepsy
Henry E. Singleton Chair in Urology
Jack H. Skirball Chair in Multiple Sclerosis Research
Jack H. Skirball Chair in Ocular Inflammatory Diseases
Jack H. Skirball Chair in Pediatrics
P. Gene and Elaine Smith Endowed Chair in Alzheimer’s Disease Research
Rebecca Smith Chair in Molecular and Cellular Pathology
Rory Smith, MD, Endowed Chair
Smotrich Family Optometric Clinician-Scientist Chair
Jerome and Joan Snyder Chair in Ophthalmology
Joan and Jerome Snyder Chair in Cornea Diseases
Joan and Jerome Snyder Chair in Vision Science
George F. Solomon Professorship in Psychobiology
Spiegelberg Family Chair in Urologic Oncology
Norman F. Sprague Chair in Molecular Oncology
Frances Stark Chair in Neurology
Fran and Ray Stark Foundation Chair in Digestive Diseases
Fran and Ray Stark Foundation Chair in Ophthalmology
Fran and Ray Stark Foundation Chair in Urology
Peter Starrett Term Chair in Medical Education
Rupert and Gertrude Steiger Vision Research Chair
Jules Stein Chair in Ophthalmology
Michael and Sue Steinberg Endowed Chair in Global AIDS Prevention and Policy Research
W. Eugene Stern Chair in Neurosurgery
E. Richard Stiehm Endowed Chair in Pediatric Allergy, Immunology, and Rheumatology
Ruth and Raymond H. Stotter Chair in Neurosurgery
Bradley R. Straatsma, MD, Endowed Chair in Ophthalmology
Dorothy and Leonard Straus Endowed Chair in Gastroenterology in Memory of Gussie Borun
Streisand Chair in Cardiology
Dr. Allen J. Swartz and Roslyn Holt Swartz Women’s Lung Health Endowed Chair
Kelly Lee Tarantino Endowed Term Chair in Integrative Liver Transplantation
Dr. George Tarjan Chair in Intellectual and Developmental Disabilities Research
Michael E. Tennenbaum Family Endowed Chair in Creativity Research
Paul I. Terasaki Chair in Surgery
Flora L. Thornton Chair in Vision Research
Leon J. Tiber, MD, and David S. Alpert, MD, Chair in Medicine
Vernon O. Underwood Family Chair in Ophthalmology
Phill Woodrow Van Wagoner Professorship
Variety Club—D. Barry Reardon Endowed Chair in Pediatric Hematology/Oncology
Richard D. and Ruth P. Walter Chair in Neurology
Richard D. and Ruth P. Walter Chair in Psychiatry
Charles Stewart Warren and Hildegard Warren Endowed Research Chair
Wasserman Professor of Ophthalmology
Wasserman Term Chair for Innovation
David Well Chair in Psychiatry and Biobehavioral Sciences
Dr. Louis Jolyon West Chair for Innovation in Psychiatry
Dr. Louis Jolyon West Chair for Excellence in Psychiatry
Wilder Chair in Psychiatry and Neuroscience
Susan and David Wilstein Endowed Chair in Medicine
Susan and David Wilstein Endowed Chair in Rehabilitation Medicine
Judith and Robert Winston Chair in Pediatric Urology

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School of Nursing
Lulu Wolf Hassenplug Chair in Nursing
Audrienne H. Moseley Chair in Biological Nursing Science
Audrienne H. Moseley Chair in Community Health Research
Audrienne H. Moseley Chair in Nursing
Audrienne H. Moseley Endowed Chair in Equity, Diversity, and Inclusion
Shapiro Family Endowed Chair in Developmental Disability Studies

Meyer and Renee Luskin School of Public Affairs
Marjorie Crump Chair in Social Welfare
Franklin D. Gilliam, Jr. Chair in Social Justice
Meyer and Renee Luskin Chair in Innovation and Sustainability
Luskin Endowed Chair for Dean of the School of Public Affairs

Jonathan and Karin Fielding School of Public Health
Fred H. Bixby Chair in Population Policy
Jonathan and Karin Fielding Presidential Chair in Health and Equity
Jonathan E. Fielding Chair in Climate Change and Public Health
Gordon–Levin Endowed Chair in Infectious Diseases and Public Health
Paul Torrens Chair in Healthcare Management
Fred W. and Pamela K. Wasserman Chair in Health Policy and Management

School of Theater, Film, and Television
David C. Copley Chair for Study of Costume Design
Lew and Pamela Hunter/Jonathan and Janice Zakin Chair in Screenwriting
Rouben Mamoulian Visiting Chair in Film Directing
Rouben Mamoulian Visiting Chair in Theater Directing

Chancellor’s Office
James S. Coleman Chair in International Development Studies
Betsy Wood Knapp Chair for Innovation and Creativity

Institute of American Cultures
George and Sakaye Aratani Chair in Japanese American Incarceration, Redress, and Community
Ralph Bunche Chair in International Studies
Morgan and Helen Chu Endowed Chair in Asian American Studies
Helen and Morgan Chu Endowed Director’s Chair of the Asian American Studies Center
Korea Times–Hankook Ilbo Endowed Chair in Korean American Studies
UCLA Alumni and Friends of Japanese Ancestry Chair in Japanese American Studies
Walter and Shirley Wang Chair in U.S./China Relations and Communications

International Institute
Rosalinde and Arthur Gilbert Foundation Endowed Chair in Israel Studies
Dong Soon Im and Mi Ja Im Endowed Chair in Korean Christianity
Paul I. and Hisako Terasaki Chair in Contemporary Japanese Studies
Terasaki Chair in U.S.–Japanese Relations

Appendix C: Faculty Honors

Distinguished Teaching Awards

Academic Senate Recipients

Each year the UCLA Alumni Association presents Distinguished Teaching Awards to Academic Senate faculty members. The highly prized awards are presented at the annual Andrea L. Rich Night to Honor Teaching, and selection of recipients is based on recommendations of the Academic Senate Committee on Teaching. Nominations are solicited from academic departments during fall quarter.

The Luckman Distinguished Teaching Awards Program was established in late 1991 after receipt of a generous gift from Harriet and Charles Luckman. Awards given for 1992 through 1997 were named the Luckman Distinguished Teaching Awards.

1961
John F. Barron (Economics)
Hector E. Hall (Physiology)
Kenneth N. Trueblood (Chemistry and Biochemistry)

1962
Charles W. Hoffman (Germanic Languages)
Thomas P. Jenkin (Political Science)
Ken Nobe (Chemical Engineering)

1963
Carl W. Hagge (Germanic Languages)
Wendell P. Jones (Education)
Robert H. Sorgenfrey (Mathematics)
Saul Winstein (Chemistry and Biochemistry)

1964
Mostafa A. El-Sayed (Chemistry and Biochemistry)
Leon Howard (English)
Moise F. Rubinstein (Civil and Environmental Engineering)

1965
E.A. Carlson (Biology)
W.R. Hitchcock (History)
Allen Parducci (Psychology)
William R. Romig (Microbiology and Molecular Genetics)

1966
George A. Bartholomew (Biology)
William P. Gerberding (Political Science)
Hans Meyerhoff (Philosophy)
Joseph E. Spencer (Geography)

1967
Basil Gordon (Mathematics)
J.A.C. Grant (Political Science)
William Matthews (English)
David S. Saxon (Physics and Astronomy)
E.K.L. Upton (Physics and Astronomy)

1968
Edward W. Graham (Chemistry and Biochemistry)
W. James Popham (Education)
Sydney C. Rittenberg (Microbiology and Molecular Genetics)
Robert P. Stockwell (Linguistics)
Fred N. White (Physiology)

1969
Robert J. Finkelstein (Physics and Astronomy)
Douglas S. Hobbs (Political Science)
J.E. Phillips (English)
Raymond M. Redheffer (Mathematics)
Margret I. Sellers (Microbiology and Immunology)

1970
Ehrhard Bahr (Germanic Languages)
Joseph Cascarano (Biology)
B. Lamar Johnson (Education)
Daniel Kivelson (Chemistry and Biochemistry)
Richard D. Lehan (English)

1971
Vernon E. Denny (Chemical Engineering)
Peter N. Ladefoged (Linguistics)
Arthur S. Schwabe (Medicine)
Duane E. Smith (Political Science)
Andreas Tietze (Near Eastern Languages and Cultures)

1972
Barbara K. Keogh (Education)
James N. Miller (Microbiology and Immunology)
David S. Rodes (English)
Ned A. Shearer (Speech)
Charles A. West (Chemistry and Biochemistry)

1973
Kirby A. Baker (Mathematics)
David Evans (Chemistry and Biochemistry)
Albert Hoxie (History)
Nhan Levan (Electrical Engineering)
Judith L. Smith (Physiological Science)

1974
Robert B. Edgerton (Anthropology, Psychiatry and Biobehavioral Sciences)
David S. Eisenberg (Chemistry and Biochemistry)
Victoria A. Fromkin (Linguistics)
Robert C. Neerhout (Pediatrics)
Andrea L. Rich (Speech)

1975
Alma M. Hawkins (World Arts and Cultures)
Morris Holland (Psychology)
Paul M. Schachter (Linguistics)
Stanley A. Wolpert (History)
Richard W. Young (Neurobiology)

1976
Marianne Celce-Murcia (Teaching English as a Second Language, Applied Linguistics)
Jesse J. Dukeminier (Law)
George R. Guffey (English)
Marilyn L. Kourilsky (Education)
Chand R. Viswanathan (Electrical Engineering)

1977
Michael J.B. Allen (English)
Henry M. Cherrick (Dentistry)
Richard C. Maxwell (Law)
J. William Schopf (Earth and Space Sciences)
Verne N. Schumaker (Chemistry and Biochemistry)

1978
William R. Allen (Economics)
Michael E. Jung (Chemistry and Biochemistry)
J. Fred Weston (Management)
Thomas D. Wickens (Psychology)
Johannes Wilbert (Anthropology)

1979
Steven Krantz (Mathematics)
Paul I. Rosenthal (Communication Studies)
Christopher Salter (Geography)
James H. White (Mathematics)
Stephen C. Yeazell (Law)

1980
A.R. Braunmuller (English)
Fredi Chiappelli (Italian)
Kenneth L. Karst (Law)
Richard F. Logan (Geography)
Ronald F. Zernicke (Physiological Science)

1981
Arnold J. Band (Near Eastern Languages and Cultures)
Charles L. Batten, Jr. (English)
Lucien B. Guze (Medicine)
Gerald Lopez (Law)
Andy Wong (Dentistry)

1982
Dean Bok (Neurobiology)
Robin S. Liggett (Architecture and Urban Design, Urban Planning)
William Melnitz (Theater)
Joseph K. Perloff (Medicine)
Karen E. Rowe (English)

1983
Claude Bernard (Physics and Astronomy)
Bryan C. Ellickson (Economics)
Robert S. Elliott (Electrical Engineering)
Albert D. Hutter (English)
Charles M. Knobler (Chemistry and Biochemistry)

1984
Robert Dallek (History)
Hooshang Kangerloo (Radiological Sciences)
Jeffrey Prager (Sociology)
Stanley Siegel (Law)
Sandra A. Thompson (Linguistics)

1985
Patricia M. Greenfield (Psychology)
David F. Martin (Computer Science)
Mark W. Plant (Economics)
Ross P. Shideler (Comparative Literature, Scandinavian Section)
William D. Warren (Law)

1986
Roger A. Gorski (Neurobiology)
Patricia A. Keating (Linguistics)
Leonard Kleinrock (Computer Science)
Martin Wachs (Urban Planning)
Scott L. Waugh (History)

1987
Lawrence W. Bassett (Radiological Sciences)
E. Bradford Burns (History)
Kenneth W. Graham, Jr. (Law)
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<th>Year</th>
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<td>1988</td>
<td>Alison G. Anderson</td>
<td>Law</td>
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<td>Ann L.T. Bergren</td>
<td>Classics</td>
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Patricia M. McDonough (Education)
Albert J. Moore (Law)
Kenneth A. Nagy (Ecology and Evolutionary Biology)
David L. Rigby (Geography)
Geoffrey W. Symcox (History)

2007
John A. Agnew (Geography)
Devon Carbado (Law)
Valerie J. Matsumoto (Asian American Studies, History)
Teofilo F. Ruiz (History)
Benjamin J. Schwartz (Chemistry and Biochemistry)

2008
Elizabeth L. Bjork (Psychology)
Peggy M. Fong (Ecology and Evolutionary Biology)
Linda C. Garro (Anthropology)
Teofilo F. Ruiz (History)
Robert S. Winter (Music)

2009
Roger Detels (Epidemiology)
Luisa M. Iruela-Arispe (Molecular, Cell, and Developmental Biology)
Yung-Ya Lin (Chemistry and Biochemistry)
Mark B. Moldwin (Earth and Space Sciences)
Janice L. Reiff (History)

2010
Katsushi Arisaka (Physics and Astronomy)
Daniel T. Blumstein (Ecology and Evolutionary Biology)
John T. Caldwell (Film, Television, and Digital Media)
Albert J. Courey (Chemistry and Biochemistry)
Jermy Kang (Law)

2011
Ann E. Carlson (Law)
Andrew Christensen (Psychology)
Ian Krouse (Music)
Patricia E. Phelps (Integrative Biology and Physiology)
Yahya Rahmat-Samii (Electrical Engineering)
Philip W. Rundle (Ecology and Evolutionary Biology)

2012
C. Cindy Fan (Geography)
Brandon Koretz (Geriatric Medicine)
Mignon R. Moore (Sociology)
Claudia Parodi-Lewin (Spanish and Portuguese)
Jonathan P. Stewart (Civil and Environmental Engineering)
Christopher S. Tang (Management)

2013
Michael F. Carey (Biological Chemistry)
John J. Colicelli (Biological Chemistry)
Rachelle H. Crosbie-Watson (Integrative Biology and Physiology)
Jonathan H. Grossman (English)
Lynn A. Hunt (History)
David Delgado Shorter (World Arts and Cultures/Dance)
Megan McDonnell Sweeney (Sociology)

2014
Paul H. Barber (Ecology and Evolutionary Biology)
Earl G. Freymiller (Dentistry)
Neil K. Garg (Chemistry and Biochemistry)

2015
Hilary A. Godwin (Environmental Health Sciences)
Hiroshi Motomura (Law)
Felicity A. Nussbaum (English)

2016
Robert W. Fink (Musicology)
Alan Garfinkel (Integrative Biology and Physiology, Medicine)
Thomas W. Gillespie (Geography)
Tyrone C. Howard (Education)
Joanna C. Schwartz (Law)

2017
Donald G. Buth (Ecology and Evolutionary Biology)
Alex C. Purves (Classics)
Eric Sung (Dentistry)
Abigail G. Saguy (Gender Studies, Sociology)
Ingrid Eagly (Law)
Alvaro Sagasti (Molecular, Cell, and Developmental Biology)

2018
Lorrie A. Frasure-Yokley (Political Science)
Christopher M. Kelly (Society and Genetics)
David W. MacFadyen (Comparative Literature, Musicology)
Selma Ortiz (Sociology)
C.E.B. Reas (Design/Media Arts)
Sarah Abrevaya Stein (History)

2019
Anastassia Alexandrova (Chemistry and Biochemistry)
Kathleen Bawn (Political Science)
Gregory F. Grether (Ecology and Evolutionary Biology)
Katsuya Hirano (History)
Eric S. Sheppard (Geography)
Stephanie A. White (Integrative Biology and Physiology)

2020
E. Tendayi Achiume (Law)
Neveen S. EI-Farra (Medicine)
MarySue V. Heilemann (Nursing)
David D. Kim (Germanic Languages)
Tamara J. M. Levitz (Comparative Literature)
Matthew D. Lieberman (Psychology)

2021
Alan D. Castel (Psychology)
Yogita Goyal (African American Studies, English)
Cheryl I. Harris (African American Studies, Law)
Thu-huong Nguyen-vo (Asian American Studies, Asian Languages and Cultures)
Gina R. Poe (Integrative Biology and Physiology)
Joshua F. Samani (Physics and Astronomy)

2022
Hannah C. Appel (Anthropology)
Kyle C. Cavanaugh (Geography)
Scott L. Cummings (Law)
Eric J. Deeds (Integrative Biology and Physiology)
Peter J. Hudson (African American Studies, History)
Non-Academic Senate Recipients

In spring of 1985, the Office of Instructional Development (now Center for the Advancement of Teaching) began sponsorship of awards to three instructors who are not members of the Academic Senate. This category includes lecturers, and adjunct and clinical faculty members. All non-Academic Senate faculty members who are nominated by their departments are eligible. Recipients are selected by the Academic Senate Committee on Teaching, using the same criteria as those used for Academic Senate members.

The Luckman Distinguished Teaching Awards Program was established in late 1991 after receipt of a generous gift from Harriet and Charles Luckman. Awards given for 1992 through 1997 were named the Luckman Distinguished Teaching Awards.

1985
L. Geoffrey Cowan (Communication Studies)
Mary Elizabeth Perry (History)
Linda Diane Venis (English)

1986
David Cohen (Mathematics)
Johanna Harris-Heggie (Music)
Paul Von Blum (Interdisciplinary)

1987
Carol D. Berkowitz (Pediatrics)
Jeffrey L. Cole (Communication Studies)
Cheryl Giuliano (Writing Programs)

1988
Jeanne Gunner (Writing Programs)
Art Huffman (Physics and Astronomy)
David G. Kay (Computer Science)

1989
S. Scott Bartch (History)
Bonnie Lisle (Writing Programs)
Kenneth R. Pfeiffer (Civil Engineering, Psychology)

1990
Lisa Gerrard (Writing Programs)
Andres Durstenfeld (Biology)
Dorothy Phillips (Physiological Science)

1991
Marde S. Gregory (Speech)
Betty A. Luceigh (Chemistry and Biochemistry)
Cheryl Pfoff (Writing Programs)

1992
Janet Goodwin (Applied Linguistics, Teaching English as a Second Language)
Janette Lewis (Writing Programs)
Yihua Wang (East Asian Languages and Cultures)

1993
Stephen Dickey (English)
Sondra Hale (Anthropology)
Jutta Landa (Germanic Languages)

1994
Steven K. Derian (Law)
Linda Jensen (Applied Linguistics, Teaching English as a Second Language)
Shelby Popham (Writing Programs)

1995
Nicholas Collaros (French)
Kristine S. Knaplund (Law)
Christopher Mott (English)

1996
Scott Bowman (Political Science)
Timothy Tangherlini (Scandinavian Section)
G. Jennifer Wilson (Honors, Undergraduate Programs)

1997
William McDonald (Film and Television)
Stuart Slavin (Pediatrics)
Sung-Ock Sohn (East Asian Languages and Cultures)

1998
Paul Frymer (Political Science)
George Gadda (Writing Programs)
Julie Giese (English)

1999
Patricia Gilmore-Jaffe (Writing Programs)
Emily Schiller (English)
Scott Votey (Emergency Medicine)

2000
Nicole Dufresne (French)
Thomas Holm (Law)
Richard P. Usatine (Family Medicine)

2001
George Leddy (Geography, International Development Studies)
Sandra Mano (Writing Programs)
L. Jean Perry (Molecular, Cell, and Developmental Biology)

2002
Steven Hardinger (Chemistry and Biochemistry)
Colleen K. Keenan (Nursing)
Cynthia Merrill (Writing Programs)

2003
Marjorie A. Bates (Chemistry and Biochemistry)
Anita McCormick (Writing Programs)
Richard Stevenson III (Dentistry)

2004
Andrew Hsu (Philosophy)
Kimberly Jansma (French and Francophone Studies)
Jennifer Westbay (Writing Programs)

2005
Susan Griffin (Writing Programs)
William Grisham (Psychology)
Anahid Keshishian (Near Eastern Languages and Cultures)

2006
Roger E. Bohman (Molecular, Cell, and Developmental Biology)
Jo Ann Darron-Rodriguez (Social Welfare)
Gerald Wilson (Ethnomusicology)
2007
Nancy Ezer (Near Eastern Languages and Cultures)
Fred A. Hagigi (Health Services)
Eric Marin (Film, Television, and Digital Media)

2008
Leigh C. Harris (Writing Programs)
Chi Li (Ethnomusicology)
Robert B. Trelease (Pathology and Laboratory Medicine)

2009
Brent Corbin (Physics and Astronomy)
Laurence Lavelle (Chemistry and Biochemistry)
Fariba Younai (Dentistry)

2010
Patrick D. Goodman (Law)
Amy H. Kaji (Medicine)
Rory M. Kelly (Film, Television, and Digital Media)

2011
Latifeh E. Hagigi (Near Eastern Languages and Cultures)
Dario Nardi (Anthropology)
John (Jay) Phelan (Life Sciences Core Curriculum)

2012
Stuart Biegel (Education)
Ronald Cooper (Integrative Biology and Physiology)
Michael Lazarus (Medicine)

2013
Randall J. Fallow (Writing Programs)
Ganna Kudyma (Slavic Languages and Literatures)
Joan R. Schleper (Nursing)

2014
Teddi L. Chichester (Writing Programs)
Robert F. Foster (Management)
Mitchem A. Huehls (English)

2015
Mary Paige Greene (Mathematics)
Eric H. Sussman (Management)
Pavel Wonsowicz (Law)

2016
Ting-Ling Chang (Dentistry)
Gregory J. Rubinson (Writing Programs)
Jeremy D. Smoak (Near Eastern Languages and Cultures)

2017
Mary F. Corey (History)
Benjamin James Lewis (Linguistics)
Jason D. Napolitano (Medicine)

2018
Karen J. Cunningham (English)
Zhao Li (Chemistry and Biochemistry)
Dana Cairns Watson (Writing Programs)

2019
Jennifer Casey (Chemistry and Biochemistry)
Juliet A. Falce-Robinson (Spanish and Portuguese)
Jorja J. Leap (Social Welfare)

2020
Cindy C. Kratzer (Education)
John G. Branstetter (Political Science)
Margaret E. Davis (Writing Programs)

2021
Justin B. Bernstein (Law)
Anthony R. Friscia (Integrative Biology and Physiology)
Tara L. Prescott-Johnson (Writing Programs)

2022
Carey S. Nachenberg (Computer Science)
Diana Rigue (Molecular, Cell, and Developmental Biology)
Laurel A. Westrup (Writing Programs)

Gold Shield Faculty Prize
The $30,000 Gold Shield Faculty Prize, an award for academic excellence, was created by the Gold Shield Alumnae of UCLA in celebration of their fiftieth anniversary in 1986. The prize is funded by an endowment of $250,000 raised by Gold Shield for this purpose, which has grown to over $450,000. Guidelines provide that the prize “recognize and reward UCLA faculty members who have demonstrated extraordinary accomplishment in teaching and in research or creative activity...and who have made a significant contribution to undergraduate education.” Preference for recipients is given to faculty members in mid-career, who do not often receive the extra professional incentives available to distinguished senior faculty.

The Gold Shield Faculty Prize is awarded to each recipient for scholarly use. The awardee is selected every year by a committee of peers appointed by the Academic Senate. Student and Gold Shield representatives are included. Recipients must come from fields that have undergraduate programs at UCLA.

1986-88
Michael E. Jung (Chemistry and Biochemistry)

1988-90
Patricia M. Greenfield (Psychology)

1990-92
Jeffrey C. Alexander (Sociology)

1992-94
J. William Schopf (Earth and Space Sciences)

1994-96
Albert R. Braunmuller (English)

1996-98
Peter M. Narins (Physiological Science)

1998-00
Robert B. Goldberg (Molecular, Cell, and Developmental Biology)

2000-02
Utpal Banerjee (Molecular, Cell, and Developmental Biology)

2002-04
Richard B. Kaner (Chemistry and Biochemistry)
In accordance with Alfred Nobel’s will, Nobel Prizes are awarded to “those who, during the preceding year, have conferred the greatest benefit to humankind.” Considered among the most prestigious awards in their field, Nobel Prizes are awarded in the fields of chemistry, economics, literature, peace, physics, and physiology or medicine. Since their 1901 inception, Nobel Prizes have been awarded to University of California faculty 71 times. Of those, seven UCLA professors have been so honored.

Willard F. Libby, 1908–1980 (Chemistry), 1960
Julian S. Schwinger, 1918–1994 (Physics), 1965
Donald J. Cram, 1919–2001 (Chemistry), 1987
Paul D. Boyer, 1918–2018 (Chemistry), 1987
Louis J. Ignarro, 1941– (Physiology or Medicine), 1998
Lloyd S. Shapley, 1923–2016 (Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel), 2012
Andrea M. Ghez, 1965– (Physics), 2020

UCLA University Professors

The title University Professor is reserved for scholars of international distinction, who are recognized and respected as teachers of exceptional ability. Appointments may be made from distinguished tenured faculty. University Professors are appointed by the Regents, at the recommendation of the president after consultation with the chancellor and Academic Senate of the appointee’s home campus.

In over 50 years, only 40 professors throughout the UC system have ever been appointed University Professor. Since 1972, six UCLA faculty have been given this honor, including one active UCLA faculty member.

Donald J. Cram, 1919–2001 (Chemistry and Biochemistry), 1988
Robert B. Edgerton, 1931–2016 (Psychiatry and Biobehavioral Sciences), 1996
M. Frederick Hawthorne, 1928–2021 (Chemistry and Biochemistry), 1998
Julian S. Schwinger, 1918–1994 (Physics), 1980
Lynn Townsend White, Jr., 1907–1987 (History), 1972
Owen N. Witte, 1949– (Microbiology, Immunology, and Molecular Genetics), 2016
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Armenian studies minor, 689
Army ROTC, 655
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Hammer museum, 17
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Murphy sculpture garden, 17
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